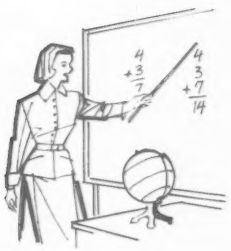
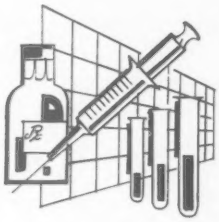
1961 | MAY



Exceptional Children



CEC Dates

June 28, 1961	CEC Program, NEA Annual Convention, St. Denis Room, Dennis Hotel, 2-4:30 P.M., Atlantic City
Nov. 15-18, 1961	CEC Western Fall Regional, Olympic Western Hotel, Seattle
Nov. 29-Dec. 2, 1961	CEC West Central Fall Regional, Commodore Perry Hotel, Austin, Texas
April 24-28, 1962	CEC International Convention, Deshler Hilton Hotel* and Neil House, Columbus, Ohio
Mar. 31-Apr. 4, 1964	CEC International Convention, Morrison Hotel, Chicago, Illinois

*Convention Headquarters

Other Dates

May 14-19	Nationl Conference on Social Welfare, Minneapolis
June 20-23	National Commission on Teacher Education & Professional Standards (Invitational), NEA, University Park, Pa.
June 25-30	National Education Association, Atlantic City
June 25-30	American Instructors of the Deaf, Salem, Oregon
June 25-30	Conference of Executives of American Schools for the Deaf, Salem, Oregon
July 2-7	American Physical Therapy Association, Palmer House, Chicago

THE COUNCIL FOR EXCEPTIONAL CHILDREN: A Department of the NEA

EXECUTIVE COMMITTEE

OFFICERS

President | Jack W. Birch

President Elect | Leo F. Cain

First Vice President | June P. England (*effective June 1*)

GOVERNORS-AT-LARGE

For Canada | Nadine Chidley (*effective June 1*)

For the U.S. | Frances P. Connor

For the U.S. | Ivan K. Garrison

For the U.S. | Mamie J. Jones

For the U.S. | Harrie M. Selznick

HEADQUARTERS STAFF

Executive Secretary and Executive Editor | Harley Z Wooden

Director of Membership and Sales | June B. Jordan

Assistant Director of Membership and Sales | Carol Dralle

Administrative Assistant and Convention Coordinator | Barbara S. Foster

Editor, EXCEPTIONAL CHILDREN, and Director of Consultative Services | John McCormick

Assistant to the Editor | Taube C. Wollman

ASSOCIATE EDITORS

Jack W. Birch, Eli M. Bower, Margaret C. Byrne, Leo F. Cain, Frances P. Connor, E. Thayer Curry, James J. Gallagher, G. Orville Johnson, William C. Kvaraceus, Ruby D. Long, Berthold Lowenfeld, Lee Meyerson, Freeman McConnell, T. Ernest Newland, Gwen Retherford, Genevieve D. Roberts, Godfrey D. Stevens, C. E. Stothers, Ruth Strang, John W. Tenny, Paul H. Voelker, Bluma B. Weiner, Harold Westlake, Paul A. Witty, Lyndall D. Zimmerman.

MEMBERSHIP: Regular membership dues are $8.50; student, $4.25; life, $150. Three dollars of each annual membership is to cover the special rate to members for EXCEPTIONAL CHILDREN. Dues are the same for all countries. CEC membership is available to individuals only, including official representatives of other organizations. Membership year is Jan. 1-Dec. 31.

SUBSCRIPTIONS: In U. S. and Canada, subscriptions are available to institutions and organizations only—not individuals. Subscriptions are accepted from individuals in countries other than the U. S. and Canada. Library and organization subscription rates without membership: U. S. and Canada, $5; Postal Union, $5; Others, $6. **Single Copy Rates: $1 All Countries.**

SEE P. 501 OF THIS ISSUE FOR NEW SUBSCRIPTION RATES!

EXCEPTIONAL CHILDREN is published by The Council for Exceptional Children, a department of the NEA, 1201 Sixteenth St., N. W., Washington 6, D. C. Any signed article in this journal is the personal expression of the author; likewise, any advertisement is the responsibiilty of the advertiser. Neither necessarily carries Council endorsement unless specifically set forth by officially adopted resolutions.

Issued monthly, Sept.-May. Second class postage paid at Washington, D. C., and additional mailing offices.

Copyright 1961 by The Council for Exceptional Children, NEA.

Find table of contents on back cover

The President's Page

Here is a portion of the head table at the President's Dinner, at the annual CEC International Convention, held last month in Detroit, Michigan. Shown from left to right are Harry Baker, Mrs. Jack Birch, Leo Cain, Pearl Buck, and Jack Birch. Authoress and winner of the Nobel Prize, Mrs. Buck was featured speaker for the evening. Her topic was "A Life for the Handicapped."

Dear Colleagues:

I'm going to miss this regular note to you, because it has kept me in such close contact with so many of my friends. Correspondence through this page has been a highlight of the year, and I thank you all for sharing your time with me in this way.

They Made It Easy

Frances Connor, Mamie Jo Jones, Leo Cain, and Ivan Garrison gave teamwork a vivid meaning this year. I enjoyed working with them.

Harley Wooden and the CEC office staff support a president tremendously; I am grateful to them.

The members of the Pennsylvania Federation and my own Western Pennsylvania Chapter helped so much. I seldom had opportunities to meet with them, but their readiness to assist in any project was a constant source of inspiration and assurance.

My dean, the faculty members at the University of Pittsburgh, and the graduate students in our department found ways to release me from many of my usual duties. Without their aid I could never have completed the year.

My family and friends, of course, were most important of all. Their interest and cooperation never fails, and I shall always appreciate that.

Divisions Do Not Divide

My family calls me "Jack the Joiner." Maybe they're right. Anyway, I do belong to all CEC's divisions. And I recommend division membership to everyone, for these operating elements of the Council have much to offer.

Perhaps we should consider, as Maynard Reynolds has suggested, a planned development of divisions. Every division we now have is making a strong contribution to the total growth of the Council.

New Executive Committee Members

The new constitution enlarged the Executive Committee to eight members. I. Ignacy Goldberg joined the group by election of the Delegate Assembly. The Governing Board approved my three nominations for one-year term for the following, pending an election next year. The three appointees are Nadine Chidley, Winnipeg, Canada; June England. Wayne County, Michigan; and Harrie Selznick, Baltimore, Maryland. I look forward to working as a member of the Executive Committee, with these excellent new members, next year.

Cooperation with Other Professional Organizations

A number of persons have told me they would find it very desirable if closer cooperation and operating relations could be established between their various specialty groups and CEC. The Council is always open to suggestions on any plan that holds promise of being mutually beneficial. In fact, we have taken a number of steps to facilitate any level of cooperative effort that might be desired.

For example, we from time to time, publicly endorse an especially helpful publication, issued by another group. We publicize the conventions of other organizations. We are doing more joint sponsorship of professional meetings with such groups. We have provided Council division status for five professional associations that have sought to be an integral part of our organization. We have provided in our new constitution for possible affiliation of other groups with the Council—involving no integration, whatever—for those wishing that type of relationship. We have, also, provided for Council affiliation with other groups on a similar basis. And we always welcome opportunities to work with other organizations on special occasions whether any affiliation exists between them and us or not.

Therefore, I take this occasion to remind all that our Council cherishes the privilege and opportunity to work with any group possessing goals and interests in common with ours—and to do so on any level of operation jointly agreed as being advantageous to both.

Our Common Need

In this final letter, I close with some phrases from the 33rd Psalm.

"For the word of the Lord is right; and all his works are done in truth.
He love the righteousness and justice: the earth is full of the goodness of the Lord . . .
Our soul hath waited for the Lord: he is our help and our shield.
For our heart shall rejoice in him, because we have trusted in his holy name.
Let thy mercy, O Lord, be upon us, according as we hope in thee."

Cordially,

Jack W. Birch

EDUCATORS OF EXCEPTIONAL CHILDREN

The AMERICAN FOUNDATION FOR THE BLIND invites you to register with its National Personnel Referral Service.

Schools and other organizations throughout the United States are developing unique programs for blind students.

Your professional abilities are needed for administrative and key teaching positions.

Write for Registration Form
National Personnel Referral Service,
American Foundation for the Blind,
15 West 16th Street, New York 11, New York

CEC members interested in advancing opportunities for hospitalized and homebound youngsters are invited to join

THE ASSOCIATION OF EDUCATORS OF HOMEBOUND AND HOSPITALIZED CHILDREN
—a Division of CEC—

PURPOSES AND AIMS:

- — Exchange of ideas, methods, materials and techniques for working with homebound children
- — To give group status to widely scattered teachers
- — To give professional recognition to this group of teachers
- — Improvement of professional standards through better teacher training

Membership is $1. per year and includes subscription to the *Newsletter* published four times per year.

•

Be sure to join now! Send $1 for dues to the Association treasurer:

Valborg Birkeness, Special Services
745 Court House
St. Paul 2, Minnesota

•

Teachers from the U.S.A. and Canada are eligible. The Association was organized during 1957-58, and officially approved as a CEC Division.

President—Elizabeth Wetzel
1032 Dorothy Street
Houston, Texas

Vice President (President Elect)—Frances P. Connor
Teachers College, Columbia University
New York 27, N. Y.

Secretary—Clarissa Hug
2726 Argyle Street
Chicago 25, Illinois

Newsletter Editor—Gloria Calovini
1130 South Sixth Street, P.O. Box 906
Springfield, Illinois

Intellectual Patterns of Gifted COMPARED WITH Average and Retarded

JAMES J. GALLAGHER
LEONARD J. LUCITO

DO THE gifted, average, and mentally retarded have different patterns of intellectual ability? Such a question would seem almost to answer itself except for a suprising number of studies which report little or no difference between these groups on memory, generalization, and reasoning abilities when the children have different IQ scores but are of *comparable mental age.*

Using groups of comparable mental age and comparing them on memory tasks Thompson and Magaret (1947) and Magaret and Thompson (1950) found average children superior to the retarded in rote memory; Laycock and Stanley (1942) found bright children superior in memory to retarded children; Wallin (1929) found retarded children superior in one phase of rote memory; but Cassell (1957) found no differences on memory tasks between normal and retarded samples. In terms of long range memory skills Wallin found the dull to be superior in vocabulary but Kolstoe (1954) found no differences between bright and dull students on that characteristic. Neither did Thompson and Magaret (1947) find any difference between average and dull with respect to long range memory skills.

On the ability to generalize or transfer knowledge, Cruickshank and Blake (1957) found that average students transferred concepts more effectively than retarded on simple learning tasks; Woodrow (1917) found no differences in transfer of training of average and retarded samples; while Johnson (1958) found the retarded able to transfer more effectively than average children!

• JAMES J. GALLAGHER is a faculty member of the Institute for Research on Exceptional Children, University of Illinois, Urbana.
• LEONARD J. LUCITO is at George Peabody College for Teachers, Nashville, Tennessee.

Only in reasoning ability did there seem to be trends relating intelligence to effective performance. Unsicker (1950) found that the bright children were superior in reasoning as did Laycock and Stanley, but Kolstoe did not.

This confused melange of results is, in the writers' opinion, due to a fundamental defect in experimental design. It has not been realized fully the extent to which matching children on Mental Age scores determines the fate of the eventual comparison. If *memory, generalization,* and *reasoning* are the factors under consideration, then matching two groups of children on Mental Age scores, in effect, also matches them on *memory, generalization,* and *reasoning* before the experiment begins, since the test score is made up of tasks requiring, to a large extent, these abilities. It is little wonder then that comparison of the two groups of differing IQ scores, but matched on Mental Age scores, will reveal no differences in their performances on these tasks. In the present study another method was used to compare the performance of different intellectual groups.

The purpose of the present study is to describe the relative intellectual strengths and weaknesses of samples of intellectually bright, average, and mentally retarded subjects, both children and adults.

Subjects and Procedure

A sample of highly gifted children was already available through a previous study (Lucito and Gallagher, 1960). In order to compare the patterns obtained by this group of gifted children with other groups of varied intellectual development a number of studies that contained enough data to allow such a comparison were obtained from the literature (Norman, 1953; Stacey and Gill, 1955; Stacey and

Table 1. Rank Correlations of Mean Wechsler Subtest Scores for Gifted, Average, and Retarded Samples

Population	Gifted			Average	Retarded		
	1	2	3	4	5	6	7
Gifted		Box [I]					
1. Gallagher and Lucito							
2. Norman	+.83						
3. Psychological Corporation	+.44	+.47					
Average		Box [II]					
4. Psychological Corporation	−.80	−.53	−.35				
Retarded		Box [III]		Box [IV]	Box [V]		
5. Stacey and Gill	−.24	−.32	−.35	+.17			
6. Stacey and Carleton	−.45	−.53	−.65	+.09	+.72		
7. Psychological Corporation	−.80	−.20	−.57	+.02	+.46	+.77	

Carleton, 1955). Only those samples which indicated no signs of psychopathology were used.

The writers were also able to obtain the original standardization data of the WISC for the 7-11 age group from the Psychological Corporation.[1] The standardization data were retabulated into three groups; a *Bright* group (Full Scale IQ 125-145); an *Average* group (Full Scale IQ 90-110); and a *Retarded* group (Full Scale IQ 40-75). It is worth noting that although there were many children (565) in the Average range of the standardization group this age level, there were relatively few children at the IQ extremes. Only 15 children in the standardization population in the age range 7-11 were found to score a WISC IQ of 130 or above.

Since there is considerable evidence (Delattre and Cole, 1952; Gault, 1954; Knopf, Murfett and Milstein, 1954) to justify the contention that the WISC is a legitimate downward extension of the adult Wechsler scales, the following comparisons (including both adult and children populations) were made.

In each of the samples the mean weighted subtest scores for the group were ranked. The subtest having the highest mean score received a rank of 1, the subtest with the next highest mean score was ranked 2, etc. Spearman Rank Order correlations were calculated comparing all samples with one another.

Results

The resulting correlations may be seen in Table 1. The three gifted groups, (Box I) correlated at a moderately positive level (+.83, +.44, +.47) with one another despite the wide range of age, sex, and geographic compositions of the samples. When the retarded or slow groups were compared against one another (Box V) it is apparent that they, too, show a positive interrelationship with correlations of +.72, +.77 and +.46. Thus within the two extreme intellectual samples there seems to be considerable consistency as to the patterns of intellectual abilities revealed.

When the rankings obtained by the gifted samples were compared with the retarded samples an interesting phenomenon may be noted. In Box III of Table 1 it may be noted that the correlations between gifted and retarded samples are consistently negative, and three of them are significant at the .05 level. It would be reasonable to conclude that the patterns of intellectual development for the retarded and the gifted are, to some extent, mirror images of each other.

The Average sample appears to have a pattern which differs from both the Gifted and Retarded groups. While there were no relationships found between Average and Retarded samples there were negative relationships between the patterns of the Gifted samples and the Average group.

Another way of considering these intellectual patterns is to relate them to the two or three major factors which have been consistently identified in factor analytic studies on the Wechsler scales (Balinsky, 1941; Hammer, 1950; Davis, 1956; Cohen, 1957).

The factor identified most often is *Verbal Comprehension* which receives important loadings from subtests: Information, Similarities, Comprehension, and Vocabulary. Table 2 shows the three highest and three lowest mean subtest scores for each

[1]Thanks are expressed to David Wechsler and the Psychological Corporation for the permission to inspect the standardization data.

Table 2. Comparison of Groups of Gifted, and Mentally Retarded on High and Low Subtests of the Wechsler Scales

	Gifted			Average	Mentally Retarded		
	Children		Adults	Children	Children		Adults
	Lucito and Gallagher	Psychological Corporation	Norman	Psychological Corporation	Psychological Corporation	Carleton & Stacey	Gill & Stacey
N =	50	43	38	565	52	150	172
CA Range =	7-11	7-11	15-29	7-11	7-11	7-16	16-58
Three Highest Subtests	Similarities	Vocabulary	Similarities	Arithmetic	Object Assembly	Object Assembly	Object Assembly
	Information	Information	Block Design	Digit Symbol	Digit Span	Picture Completion	Digit Symbol
	Vocabulary	Similarities	Vocabulary	Picture Arrangement	Picture Completion	Digit Span	Picture Completion
Three Lowest Subtests	Picture Completion	Picture Completion	Digit Symbol	Block Design	Vocabulary	Information	Digit Span
	Picture Arrangement	Digit Span	Picture Arrangement	Information	Information	Vocabulary	Information
	Digit Span	Digit Symbol	Digit Span	Similarities	Picture Arrangement	Arithmetic	Arithmetic

sample on the Wechsler subtests. The gifted samples in Table 2 have three of these subtests in their intellectual strengths. Conversely, the Average sample and the Retarded groups appear to be relatively poor on tests related to this factor.

A second factor consistently identified on the Wechsler scales has to do with *Perceptional Organization* or *Nonverbal Organization* or *Spatial-Perceptual ability* depending on the labeling preferences of the investigators. This factor receives its highest loadings on subtests: Block Design, Object Assembly, and Picture Completion. The mentally retarded samples seem to be relatively strong on two of the subtests related to that factor while the gifted do poorest on these tests with respect to their other subtest scores.

The average group presents a pattern that shows neither outstanding strength or weakness on these factors. Perhaps this is consistent with the label of Average for this group.

These results support the common observations that the retarded person does best on those tasks where most of the elements necessary to solution are presented to him and limited reorganization and association skills (particularly verbal association) are required to succeed. On the other hand, the retarded samples seem to lack the stored information and experiences (Information and Vocabulary) that are the intellectual strengths of the gifted group.

Cohen (1957) described a third factor called *Memory* with high loadings on subtests: Digit Span and Arithmetic which also appear as weaker subtests for the retarded samples.

Educational Implications

There would seem to be a number of educational implications that can be drawn from the different patterns of intellectual strengths and weaknesses revealed in the above comparisons. There seems to be no similarity between the retarded children's patterns of intellectual development and that of children of average intelligence. This seems to suggest that different patterns of curriculum and methods should be used to best meet the strengths and weaknesses herein revealed. The retarded subjects show a definite weakness in the area of stored information and short range memory which probably needs to be taken into account in the curriculum planning for this group. The relative strength of the *Perceptual Organization* factor in the retarded indicates a superior capacity to use structured concrete visual materials. This would seem to point the way to the use of those kinds of materials to help establish the needed intellectual skills, and suggests the use of these techniques to help build verbal abstractions in the program, if possible.

On the other hand, there seems to be a negative relationship between the patterns of gifted individuals and those of average ability. This difference

also suggests some differences in educational programming. The outstanding strength of the gifted lie in their large fund of past information and the ability to associate concepts. They thus show themselves the most capable in the building blocks of verbal intellect and should be able to extend their information into an analytical and evaluative type of curriculum rather than one which is restricted to the absorption of facts, skills, and information. Their high level of verbal abstract performance also may mean that they need *not* go through as much of the concrete phases of the curriculum with a heavy emphasis on visual and concrete cues as average children in order to understand the concept to be learned. It must not be forgotten that even the "weaknesses" of the gifted are substantially above the strengths of the other two groups.

Summary

The patterns of intellectual strengths and weaknesses on Wechsler subtests were compared for seven samples: three gifted, three retarded, and one of average intellectual ability. There was internal consistency in the patterns within both the retarded and gifted groups lending credence to the belief that different intellectual levels do have their specific patterns of intellect.

Negative relationships were discovered between the gifted group and the retarded group patterns. The patterns of the mentally retarded were almost the mirror image of the patterns of the gifted. The gifted appear strongest on the factor of *Verbal Comprehension* while they are poorest on tests relating to a *Perceptual Organization* factor. Exactly the opposite was true of the retarded groups. The average group had patterns different from either of the two extreme samples. The implications of these different patterns for school programming were briefly discussed.

References

1. Balinsky, B. An analysis of the mental factors in various age groups from nine to sixty. *Genet. Psychol. Monogr.*, 1941, *23*, 191-234.
2. Cassell, J. T. Serial verbal learning and retroactive inhibition in aments. *J. Clin. Psychol.*, 1957, *13*, 369-372.
3. Cohen, J. The factorial structure of the WAIS between early adulthood and old age. *J. consult. Psychol.*, 1957, *21*, 283-290.
4. Cruickshank, W. M. & Blake, K. A. *A comparative study of the performance of mentally handicapped and intellectually normal boys on selected tasks involving learning and transfer.* Syracuse Univer. Research Institute, Office of Research in Special Education and Rehabilitation, 1957.
5. Davis, P. C. A factor analysis of the Wechsler Bellevue Scale. *Educ. psychol. Measmt.*, 1956, *16*, 127-146
6. Delattre, Lois & Cole, D. A comparison of the WISC and the W-B. *J. consult. Psychol.*, 1952, *16*, 228-230.
7. Gault, Una. Factorial patterns of Wechsler intelligence scales. *Austr. J. Psychol.*, 1954, *6*, 85-93.
8. Hammer, A. G. A factorial analysis of the Bellevue tests. *Austral. J. Psychol.*, 1950, *1*, 108-114.
9. Johnson, G. O. *Comparative studies of some learning characteristics in mentally retarded and normal children of the same mental age.* Syracuse Univ. Research Institute, Syracuse Univ. Press, 1958.
10. Knopf, I. J., Murfett, Betty, & Milstein, V. Relationship between the W-B Form 1 and the WISC. *J. clin. Psychol.*, 1954, *10*, 261-63.
11. Kolstoe, O. P. A comparison of mental abilities of bright and dull children of comparable mental ages. *J. educ. Psychol.*, 1954, *45*, 161-168.
12. Laycock, S. R. & Stanley, C. The comparative performance of a group of old-dull and young-bright children on some items of the Revised Stanford Binet Scale of Intelligence (L). *J. educ. Psychol.*, 1942, *33*, 1-12.
13. Lucito, L. & Gallagher, J. Intellectual patterns of highly gifted children on the WISC. *Peabody J. Educ.*, 1960, *38*, 131-136.
14. Magaret, Ann & Thompson, C. W. Differential test responses of normal superior and mentally deficient subjects. *J. abnorm. soc. Psychol.*, 1950, *45*, 163-167.
15. Norman, R. D. Sex differences and other aspects of young superior adult performance on the W-B. *J. consult. Psychol.*, 1953, *17*, 411-418.
16. Stacey, C. L. & Carleton, F. O. The relationship between Raven's colored progressive matrices and two tests of general intelligence. *J. clin. Psychol.*, 1955, *11*, 84-85.
17. Stacey, C. L. & Gill, Marie. The relationship between Raven's colored progressive matrices and two tests of general intelligence for 172 subnormal adult subjects. *J. clin. Psychol.*, 1955, *11*, 86-87.
18. Thompson, C. W. & Magaret, Ann. Differential test responses of normals and mental defectives. *J. abnorm. soc. Psychol.*, 1947, *42*, 285-293.
19. Unsicker, W. D. A psychological study of bright and dull children with comparable mental ages. (Unpublished Ph.D. Dissertation). Univer. of Iowa, 1950.
20. Wallin, J. E. W. A statistical study of the individual tests in the Stanford Binet Scale *Mental Measurement Monograph*, 1929, *6*, 1-58.
21. Woodrow, H. Practice and transference in normal and feebleminded children. *J. educ. Psychol.*, 1917, *8*, 85-96, 151-165.

NOW AVAILABLE! 3rd Edition of

A GUIDE TO CURRICULUM PLANNING FOR THE TRAINABLE OR SEVERELY RETARDED

Included are suggested class standards, sample lessons, sample daily programs, and an up-to-date bibliography on the trainable.
114 pp. $1.50

To order send check or money order payable to: DONALD W. WOOD, BOX 452, CENTRAL MICHIGAN UNIVERSITY, MOUNT PLEASANT, MICHIGAN.

A Study of the Integration of Deaf Children in Regular Classrooms

CLARENCE D. O'CONNOR
LEO E. CONNOR

THE topic of integrating deaf children into regular school programs has received considerable attention in recent years, but relatively few evaluative studies have been published. Ewing's summary of an eight-year study of 223 deaf children in England indicated that rarely did the factors of desirable speech, social competence, and intelligence allow a deaf child to be educated in regular school programs.[1] A study of the integration of 20 selected deaf pupils, conducted by the New York City Board of Education, indicated failure during the first year and limited success during the second year under an individualized program of instruction and with continued assistance by itinerant teachers of the deaf.[2] The experience and empirical opinion of competent professional leaders have yielded further statements concerning the complexities and difficulties that may be encountered in educating deaf children under integrated programs in regular schools.[3,4,5,6]

During the years 1947-1957, 52 deaf children had transferred, before graduation, from the Lexington School for the Deaf to integrated classes in regular public or private schools. An investigation of the academic success or failure of these transferees was begun to determine some general factors that might characterize such failure or success. Accordingly, the Board of Trustees of the Lexington School for the Deaf in December 1957, approved the follow-up study of integrated transferees.

Former Pupils Chosen

Twenty-one students were chosen for evaluation on the basis of their then present attendance at regular private or public schools in the metropolitan New York area. These schools had no special classes or teachers for the deaf, and the deaf pupils were placed in classes with children who heard normally.

Table 1. DESCRIPTION OF FORMER LEXINGTON PUPILS

Child	Age at Entrance	Yrs. at Lex.	Last Grade —Lex.	Transferred By:*	Hearing Loss in db.	Indiv. IQ Results
1	3	5	2nd	P	86	132 WISC
2	3	1	Nurs.	C	50 Est.	130 Mrl-Pal
3	4	3	1st	P	69	128 WISC
4	3	1	Nurs.	P	88	127 WISC
5	4	5	2nd	L	68	125 Est.
6	4	4	2nd	L	77	125 WISC
7	3	10	5th	P	84	124 Pnt-Pat
8	4	1	Nurs.	L	55	120 WISC
9	2.5	5.5	2nd	L	68	120 WISC
10	3	10	4th	P	78	115 Est.
11	3	8	3rd	P	89	115 WISC
12	4	1	Nurs.	P	82	112 Mrl-Pal
13	3	2	Nurs.	L	71	111 Mrl-Pal
14	4	4	2nd	L	63	110 WISC
15	3	7	3rd	L	68	109 WISC
16	4	11	8th	L	78	108 WB
17	3	5	2nd	L	88	107 WISC
18	4	3	1st	L	76	101 WISC
19	3	5	2nd	P	84	101 WISC
20	3	2	Nurs.	P	57	94 WISC
21	5	3	1st	L	57	93 WISC
Average	*3.5*	*4.6*			*73.1*	*114.6*

* P *indicates at Parents' request*
L *indicates at Lexington Staff's recommendation*
C *indicates at request of Clinic*

The former Lexington School pupils were visited in their respective schools, their teachers and principals (or other administrative and guidance per-

[1] Ewing, A., *Educational Guidance and Deaf Children*, Volta Bureau, Washington, D. C., 1958.

[2] Board of Education of New York City, *Integration of Deaf Children in Hearing Classes*, September 1956 and 1957.

[3] O'Connor, Clarence D., *Proceedings of the International Congress for the Modern Educational Treatment of Deafness*, Manchester, England, 1959.

[4] "Institute on Personal, Social and Vocational Adjustment to Total Deafness," *American Annals of the Deaf*, Washington, D. C., March 1958, Vol. 103, No. 3.

[5] Avery, C., in Cruickshank and Johnson: *Education of Exceptional Children*. Prentice-Hall, Englewood, N. J., 1958.

[6] Meyerson, L., in Cruickshank: *Psychology of Exceptional Children*. Prentice-Hall, Englewood, N. J., 1955.

• CLARENCE D. O'CONNOR is superintendent and LEO E. CONNOR is assistant superintendent of the Lexington School for the Deaf, New York City, N. Y.

sonnel) interviewed, and the pupils and parents were asked to return to the Lexington School for an interview and the administering of standardized tests to the pupils. In all, 18 schools were visited; arrangements with the remaining three schools could not be made with the local officials.

Table 1 includes a description of the former Lexington pupils. Each deaf pupil had spent a minimum of one year at the Lexington School. All of the 21 children entered the school during the pre-school years; *i.e.*, at two, three, four, or five years of age. About one-half of the group had finished the nursery program (two years), kindergarten, and the first grade and had begun second grade work before transferral. The other half had completed nursery, kindergarten, and from at least two to eight grades prior to entrance into regular classes. The average age at entrance to the Lexington School was three-five years. The group spent an average of four to six years prior to being transferred, and were, hence, an average of 8.1 years old upon transferral.

Records and Methods Used

The school records of these children indicate that less than half of the children were transferred at the parents' request (nine out of 21); and slightly more than half (11 out of 21) were transferred at the recommendation of the Lexington School staff. One child was transferred at the request of a clinic.

The average hearing loss in the speech range (500-1,000-2,000 cps) in the better ear for the group was 73.1 db. Of the 21 pupils, four had average hearing losses in the 50's, five in the 60's, five in the 70's and seven in the 80's. In one case a numerical estimate was equated with a verbal categorization.

Intelligence test scores were obtained for each pupil during 1958 for all but six cases. The Wechsler Intelligence Scale for Children (WISC) Performance Scale or the Wechsler-Bellevue Test (WB) was administered except where indicated in the last column of Table 1. Other test scores used in IQ assessment were the Pintner-Paterson Non-Verbal Scales (PNT-PAT), and the Merrill-Palmer Scales

Table 2. Summary of Information on Integrated Deaf Pupils

Child	Age in 1958	Grade Level 1958	Reading Achvt.*	Arith. Achvt.*	Teacher Estimates:** of Gen. Achvt.	of Speech	of Wr. Lang.	No. Pupils in Class
1	15	9	6.1	8.3	Gd.	Fr.	Fr.	30
2	7	1	....	....	Av.	Fr.-Pr.	Fr.	25
3	12	6	5.0	5.5	Ex.	Ex.	Gd.	54
4	6	2	1.4	1.5	Pr.	Pr.	Pr.	32
5	17	11	Over 2 yrs. retard.		Pr.	Fr.	Fr.	25
6	15	9	8.7	8.3	Gd.	Gd.	Gd.	30
7	19	H.S. ungraded	....	....	Failing in class	Fr.	Pr.	Indiv. work
8	8	2	3.1	....	Fr.	Gd.	Fr.-Gd.	19
9	12	6	7.1	7.7	Gd.	Gd.	Gd.	18
10	15	9	5.0	7.4	Av.	Fr.	Gd.	26
11	16	9	....	....	....	....	....	....
12	11	5	5.3	4.0	Pr.-Gd.	Gd.	Satis.	28
13	12	4	2.5	....	Unsat.	Pr.	Fr.	26
14	15	9	....	....	Ex.	Gd.	Gd.	33
15	17	11	....	....	Fr.	Fr.	Fr.	30
16	21	11	....	....	Av.	Pr.	Pr.	15
17	13	7	6.5	6.9	Ex.	Gd.	Gd.	36
18	13	6	4.6	5.1	Pr.-Fr.	Fr.	Pr.	23
19	13	7	5.7	5.2	Av.	Fr.	Gd.	27
20	10	4	5.5	6.0	Ex.	Ex.	Gd.	27
21	14	6	4.1	5.2	Pr.	Gd.	Pr.-Fr.	38
Average	*13.4* (N=21)	*6.7* (N=20)	*5.0* (N=14)	*5.9* (N=12)				*27.1* (N=19)

** Stanford Achievement Test for junior high school grades and California Advanced Achievement batteries for high school levels were administered.*

*** Ex. (Excellent), Gd. (Good), Fr. (Fair), Av. (Average) and Pr. (Poor).*

(MRL-PAL). In two cases, numerical equivalents of verbal classifications of mental ability were estimated (EST). The average IQ for the group was 114.6.

At his current school, each former Lexington pupil was observed in class, and an interview was arranged with the child's teacher and the school principal or his representative. A schedule of topics was discussed with these staff members to obtain the estimates of achievement and adjustment. When the child returned to the Lexington School for his interview and testing, he was given a standard achievement test in addition to the intelligence test in order to compare his grade level of achievement (in the basic subjects of reading and arithmetic) with the grade in which he was currently enrolled.

Table 2 contains a summary of the current information obtained concerning each child. The order in this table is the same as in Table 1. The average age of the pupils during 1957-1958 was 13.4 years, and they had achieved an average of 6.7 grade level. Sixty percent of the group were enrolled in grades expected of their age. About 40 percent were placed in grades one or more years below their age level. Of the 15 children for whom average reading achievement scores could be obtained, five were achieving at their designated grade level or not more than one grade behind, and three were achieving over a grade higher than their designated grade. The remainder (seven in number) scored over a full year or more below their designated grade in reading. The average achievement in reading for this group was 5.0 grade level.

The average arithmetic grade level achieved by the pupils for whom such information was obtainable was 5.9. Of 14 children, two scored over one year higher than their designated grade level, eight scored at their grade level or not more than one year below; and four scored more than one year below their level of grade placement.

Teachers' estimates of general achievement, of speech and of written language for each child are presented in Table 2. Subjective estimates of general achievement ranged from excellent (four children), to good (four), to fair or average (six) and to poor (six). The speech of two of the children was rated as excellent; seven were rated as good; eight as fair; and only three as poor. The teachers' ratings of the children's written language are as follows: good, eight; satisfactory, one; fair, six; and poor, five.

Current Evaluations

Interviews with teachers and school officials where the subjects were enrolled indicated that the parents' interest and positive attitude toward school were linked with the child's success in school. Parents who came to school often or requested additional services from the school usually had deaf children who were succeeding in the regular classes. Parents also stressed to the interviewer the importance of their child's attendance in the specialized program of the Lexington School at an early age and indicated their appreciation for the opportunity and time spent in the establishment of the skills of speech, lipreading, and use of language. They further expressed appreciation for the assistance they received there in solving their personal and family problems.

Almost half of the regular school teachers remarked upon their own difficulty at first in understanding the deaf child's speech, but only three indicated that their pupils' speech was still poor. Over 35 percent of the children received no extra help, other than that given them by classroom teachers in the regular school program. The most often mentioned extra service for the other 65 percent was a speech or hearing specialist, while guidance personnel, psychologists, and remedial teachers were mentioned in descending order.

A deaf child needs the benefit of many favorable factors before integration into a regular school program should be considered. Although the criterion of hearing loss is commonly accepted as paramount, such factors as his intelligence, the degree to which the program to which he may be transferred is equipped to meet his special needs, his parents' interest and capacity to help him, his speech and language abilities, his emotional maturity, and his subject matter achievement must be also considered as important.

There is evidence that parents of children with hearing losses in the decibel range of the 50's, 60's, and 70's are mistakenly impressed with the factor of speech mastery to the exclusion of the other important considerations. This probably stems from the normal desire of parents to have their children attend a regular school, but is also fostered by much

of the professional literature dealing with school placement and the advice given to families by non-educational personnel in various agencies and clinics.

While no single factor in this study could be equated with the deaf children's success in the regular school program, almost all of the unsuccessful cases could be attributed to one or two elements such as the absence of parental support, lack of sufficient intelligence, below average reading achievement, or poor teacher and administrative attitudes and organization of the regular program.

The apparent failure of some of the children who seemed to have all the factors needed for success in regular schools led to an evaluation of the elements beyond the control of the Lexington School. Parental support and the regular school's attitudes and programs seemed to be the main obstacles. Educational opportunities for deaf children in a regular program vary from school to school and from district to district. Optimistic reports regarding a local school's services cannot be accepted from parents or the initial assurances of local district administrators. Consideration of transfer for individual deaf children may be more effective if visits by personnel from the special and the regular school to each other's on-going program are included.

Views About Deaf Pupils

The results of this intensive study of able former pupils of the Lexington School for the Deaf indicated that about half were unsuccessful in their transfer to integrated classes. It also tended to reinforce the views consistently held at the Lexington School concerning the possibility of deaf children integrating into a program geared to the normally hearing. These are the following:[7]

1. That, with very few exceptions, children who begin life with an average speech range hearing loss of 60-70 db. or more cannot successfully or comfortably integrate educationally with hearing children at the age of four, five, or six. They need a specialized program for the deaf for a number of years, at least, in order to acquire facility in the use of language and speech.
2. That the percentage of deaf pupils in a special school or class for the deaf who are logical candidates for ultimate educational integration in classes for the hearing is small. The majority will need the benefit of specialized programs for the deaf throughout their entire educational careers.
3. That a deaf pupil should not be transferred to regular classes until he has developed communication ability that will make it possible for him to meet the severe competitive conditions he will experience therein. This means that, in general, he will not be ready for such transfer before the age of eight or nine.
4. That a careful assessment of the following factors be made for each pupil for whom a transfer to regular classes is being considered:
   a. His age
   b. His communication ability
   c. His intelligence
   d. His personality makeup
   e. His parents
   f. His scholastic achievement
   g. The program to which he will be transferred.

[7] O'Connor, Clarence D., "The Integration of the Deaf in Schools for the Normally Hearing," *Parent's Newsletter*, Lexington School for the Deaf, New York City, Vol. XV, No. 8, May 1960.

EDUCATION CONSULTANT POSITIONS with the State of California in Sacramento. Starting salaries $9,384; increases to $11,400. Pleasant working conditions; liberal employee benefits.

CONSULTANT IN THE EDUCATION OF THE MENTALLY RETARDED requires three years experience in special education for the mentally retarded; and possession of valid California credential to teach exceptional children.* Applications must be filed by May 12, 1961.

CONSULTANT IN EDUCATION OF THE DEAF AND HARD OF HEARING requires three years of teaching experience—at least two in teaching, supervising or administering a program for the education of the deaf or hard of hearing; and possession of valid California special secondary credentials to teach the deaf and hard of hearing.* Applications must be filed by May 26, 1961.

*Applicants who do not possess the required credential will be admitted to the examination, but must secure the credential before they will be considered eligible for appointment.

WRITE: California State Personnel Board, 801 Capitol Avenue, Sacramento 14, Calif.

The Mentally Retarded

EDGAR A. DOLL

DEFINITION. There are two types of mental retardation, namely: (1) intellectual subnormality, and (2) clinical mental deficiency. The former represents a statistical deviation from the psychometric norm for the test employed at the time. The latter is a behavior syndrome or clinical symptom-complex established from multiple diverse data. Intellectual subnormality is associated with correspondingly subnormal academic achievement, but with over-all social competence sufficient for successful adult independence. Mental deficiency is an over-all developmental deficiency (in addition to psychometric retardation) which results in social incompetence and requires adult guardianship. With unfavorable personality traits or environmental circumstances, the intellectually subnormal may achieve marginal or temporary social failure. With favorable personality and environmental circumstances, the mentally deficient retarded may achieve marginal or temporary social success.

In view of these two categories of mental retardation, their consideration for school purposes is best set forth separately as well as jointly. It is the position of this manuscript that these two groups are in need of different curricula and classroom management.

Intellectual Subnormals

Detection. As noted above, the intellectually subnormal mentally retarded represent a statistical range on the total distribution of intelligence in a general population. This will depend, in part, (1) on the nature of the normative population; in part, (2) on the statistical units conventionally adopted; and, in part, (3) on the kind of measurement device employed. Thus, the normative sample may include or exclude such variables as age, sex, race, cultural status, *etc.* The statistical units may be mental age (actual degree of intelligence), mental ratio or quotient (relative degree of intelligence), standard score (percentile position deviation), or descriptive term (interpretation unit). The measurement device may be group or individual, literate or non-literate, verbal or non-verbal, abstract or concrete, and any of many particular devices within these categories.

As measured by test performances, intellectual subnormality is related to many factors. Applied to native white children of varying school determinants (age, grade, physical integrity, etc.), it is of varying degrees, usually between the one percentile and the 15 percentile (—2 to —1 SD) of standard classroom groups. This assumes reliability and validity for the measurements, and particularly the absence of influences which vitiate test scores, such as physical disability, emotional and motivational influences, and other conditions which affect the examining relationship and the measurement instruments employed. The selection of these instruments for group testing purposes may be determined by administrative fiat, but for individual purposes should be a prerogative of the school psychologist (with due regard for some aspects of school policy).

Classroom Placement. Intellectually subnormal children are academic slow learners. They should otherwise be considered as normal people. Their admittance to classroom instruction and its continuance is influenced almost solely by their academic aptitudes and progress. Generally this retardation in achievement is progressive or cumulative so that by the time these children reach junior high school, it is highly advisable that they be in some type of special grouping with a modified curriculum and diversified objectives. Although it is customary, in many programs, to include the intellectually subnormal with the mentally deficient subnormal in special classes, these two groups are in need of different curricula and classroom management. It is, therefore, advisable as soon as practicable to separate these two types of slow learners. The intellectually subnormal can usually best be cared for in a slow learning class at the junior high school or senior high school level. It is more practicable for the mentally deficient retarded to be

• EDGAR A. DOLL is consulting psychologist for the Bellingham Public Schools, Bellingham, Washington.

placed in special class programs with different objectives and termination policy.

Selection. The selection of the intellectually subnormal is most generally based on low scores on intelligence tests, usually the verbal type of intelligence tests, and scholastic achievement. It is desirable that these test performances be supplemented by other kinds of tests not requiring verbal facility or the higher levels of literacy. As a rule, the intellectually subnormal will be much less subnormal, if not indeed close to average, on these other types of tests. The reason for this is that their essential characteristic is one of verbal scholastic retardation, or academic inaptitude.

The purpose of these selection procedures is to demonstrate that the intellectually subnormal child is essentially normal in other respects than intelligence. Consequently, it may be desirable to supplement the intelligence and achievement tests with tests of social adequacy, tests of skill, tests of nonverbal aptitudes, tests of personality, etc. It would also be advisable, circumstances permitting, to pursue the selection further with history data, including developmental history and/or school history. As a rule, the developmental history would be substantially average or normal, while the school history would show progressive or cumulative scholastic retardation.

The degree of verbal intellectual subnormality will usually vary in IQ terms between approximately 50 and 80 IQ points. This corresponds to a standard score equivalent to the percentile range of the appropriate population norm extending from two percentile to 15 percentile (or about —2 to —1 SD), but this range may be determined by circumstances or practical expediency; in particular, the grouping should be based on mental age and degree of scholastic attainment rather than upon IQ.

Program. The program for these children is essentially a supportive program in the academic area without much expectation of substantial forward progress. Usually by the time these children are detected, they will have attained most, if not all, of their final scholastic expectation. However, supportive instruction may help to correct some of the shortcomings in the degree of attainment already achieved, may consolidate and capitalize the degree of attainment, or may advance it in some particulars. The academic improvement might be fairly substantial in those instances where specific sensory, emotional, or other interferences to academic attainment have unfavorably influenced the child's educational progress and perhaps spuriously affected the measurement of his intelligence.

It is suggested that the academic program be considered minimal and sustaining rather than optimistically progressive. Other aspects of the educational program would then still include all other school activities, such as physical education, industrial arts, music, etc. Generally speaking, the proportion of these non-scholastic to scholastic elements in the curriculum would be heavier on the non-scholastic side as compared to ordinary children.

It is not to be anticipated that very many of these children would be scholastically remediable to the extent of regaining their normal scholastic grade-placement expectation for age. On the contrary, it would seem that the educational objectives for the intellectually subnormal should be differentiated as to goals, since the academic expectation of success is unrealistic; hence, there would be a larger variety or extent of the non-scholastic elements of the ordinary curriculum. This would depend, in part, on the grade placement of the child in terms of age and ability; whether, for example, in elementary grades, junior high, or senior high. Particularly at the senior high level it is very important that the intellectually subnormal children be not segregated from association with their age peers because of their academic under-achievement; rather, this under-achievement should be compensated for in areas of learning where these children can achieve ordinary or better than average success, and the social relations of these children to their age peers should be carefully safeguarded.

With reference to this program, it is entirely feasible to redesign the curriculum for each child according to his aptitudes and yet maintain a classroom group. For this purpose, there are two possible procedures. One is to divide the day horizontally into a half-day scholastically sustaining program, and the other half in non-academic pursuits. The first half-day would be under one teacher, while the second half-day would be under the usual departmentalized teachers.

Alternatively, the child's day might be divided vertically with sustaining scholastic work in partic-

ular periods of the school day, and the child assigned to otherwise normal departmentalized instruction according to his ability or needs.

According to the first plan, the homeroom teacher's responsibility would be for the half-day of scholastically sustained instruction, only. According to the second plan, the home teacher (or core teacher) would be responsible for specific periods of instruction and for programming and shepherding the child through his other departmentalized classes.

Class Load. The class load for the intellectually subnormal child would depend, of course, on over-all age, degree of intelligence, and degree of educational achievement of the class as a group. It would also depend upon circumstantial factors within the school district, including particularly the size of the school population and the facilities of school buildings, according to their population and physical facilities. In general, the class load might be expected to be not lower than 15 nor more than 25, depending upon circumstantial exigencies. It is suggested that an optimal class size would be about 20 pupils. This, however, would be determined in part by the management problems of the classroom, both as to curriculum and curricular facilities, as well as problems of disciplinary management and the heterogeneity of the individuals.

Philosophy. The philosophy of the school program for the intellectually subnormal child assumes that he is essentially average, or normal, in all major particulars except verbal intelligence and scholastic achievement. Obviously, this orientation is optimistic and may be disappointed in specific directions for a particular child, but this is the basic orientation. This assumes that the child may be expected to have continuing scholastic difficulty, but that this need not exclude him from school services; rather, that school services should be designed to capitalize his other, or non-academic talents, which may be quite substantial, if not indeed in some instances, superior. Obviously, verbal academic retardation does not necessarily guarantee genius in other directions. However, it does assume that there may be substitutive aptitudes of at least ordinary variety and degree. This means that the child's learning capacity is presumed to be adequate in other directions. It also means that insofar as there are scholastic prerequisites to success in non-scholastic areas, the supportive academic program should bear this in mind and be pursued accordingly.

The philosophy further assumes that these children are essentially normal children in spite of their intellectual retardation and scholastic under-achievement. This means that in all substantial particulars of school management they should be considered as ordinary pupils with only specific disabilities in the scholastic area. It further means that the non-scholastic curriculum may require certain physical facilities and curricular aids not common to the standard classroom; briefly, this would mean the availability of various kinds of vocational or manual education materials. These, in turn, would be determined by the curriculum decided upon and the aptitudes of the teacher for pursuing this curriculum. In the ordinary case, since most of these children will be under departmental instruction, it is presumed that they could attend regular classes of the non-academic type and have access to the ordinary facilities and teachers of these classes. Hence, their relation to the regular school program is substantially like that of other children with only specific accommodation to the verbal scholastic deficiencies and consequent modification of program.

The Mentally Deficient Retarded

As noted previously, there are two types of mental retardation, namely: the intellectually subnormal and the mentally deficient; and, as developed above, the intellectually subnormal are substantially average people in other respects than verbal scholastic aptitudes. The mentally deficient, on the other hand, represent a clinical category of over-all deficiencies and/or defects, which require much more than mere intelligence evaluation. Whereas the initial evidence for mental retardation may be determined by group test scores for both the intellectually subnormal and the mentally deficient, the further determination of mental deficiency *vs.* intellectual subnormality would always be determined by individual or clinical evaluation of each child, employing comprehensive data.

This clinical evaluation requires a consideration of much more than degree of intelligence. It requires, in the first instance, evidence of social inadequacy or incompetence, as well as intellectual

inadequacy. It requires, further, that the social incompetence should be a consequence of the mental incompetence. Still further, it requires that the over-all retardation be developmental within the period of normal child growth—that is, within the school years.

This requirement places special emphasis on the developmental history and a search for etiology, or cause, of the child's condition. The developmental history, of course, includes the school history, as well as medical history, and this, in turn, requires skill in interviewing and casework procedures.

The clinical determination of mental deficiency involves at least three aspects, namely: present status, previous status, and prospective status. In other terms, this means current evaluation, etiology, and prognosis. The determination of mental deficiency in school children then requires a prediction that these children at maturity will not be able to manage their affairs independently of family or social guardianship, or some type of supervised residential placement. This prediction, while clinically difficult, is not impossible in the majority of instances, because of the total synthesis of multiple data from various sources. Sometimes the prediction is influenced by physical characteristics; sometimes by the kind of aptitudes, rather than their degree; sometimes by indications from developmental and etiological history, *etc.* In general, a properly qualified clinical psychologist should have no difficulty in meeting the requirements for such clinical evaluation of the individual child. It will, however, mean that he would use psychometric mental retardation only as one of the indications for mental deficiency, because, otherwise he would not be able to discriminate mental deficiency from intellectual subnormality, except in the very severe degrees. This is because in the verbal IQ range from, say 50 to 70, or even 80, there is a complete overlap in scores between the lower degrees of intellectual subnormality and the higher degrees of mental deficiency. Sometimes this overlap permits differentiation on the basis of test patterning or the disparities obtained between different kinds of test performances, but usually other kinds of data are needed.

It is presumed that in determining mental deficiency the clinician will be skilled in interviewing and also in clinical observation. He will presumably be familiar with certain earmarks of behavior and achievement performances which lead to a perception of mental deficiency *vs.* intellectual subnormality, due to the essential differences between these two categories. He will be adept in distinguishing between intelligence and language use.

In earlier days, mental deficiency was referred to as feeble-mindedness. If we use this term, then the distinction between the two types of mental retardation becomes much more apparent. The parents of feeble-minded children commonly join parent associations for retarded children, whereas the parents of intellectually subnormal children do not join these associations. When articles are written about mental retardation, they usually deal with clinical mental deficiency, unless written by school people concerned only with scholastic progress or the vocational substitutes for scholastic progress. Numerically the intellectually subnormal retarded outnumber the mentally deficient retarded by at least three to one.

In any case there is much confusion on the part of educators regarding these two varieties of mental retardation; hence they are frequently treated together rather than separately. This means that many of the claims for ultimate success of supportive programs are much more influenced by the intellectually subnormal than by the mentally deficient. The term "educable mentally retarded" generally refers to the heavier proportion of intellectually subnormals in the program. The term "trainable" is likely to refer to the more severely retarded mentally deficient children. If this distinction of "educable" and "trainable" is made on the basis of intelligence quotient alone, then it is invalid; since both mental age and position scores (or standard scores) are relevant in addition to the clinical *vs.* psychometric determination of the two conditions.

Classification. The terms "educable" and "trainable" are not suitably descriptive of their intent. As commonly used, they refer to degrees of presumptive educability on an IQ basis. Actually, the real basis for learning is not IQ (relative intelligence), but MA (actual intelligence). That is to say, mental age is the level for learning and IQ is the relative degree within particular mental age groups. Furthermore, education and training are

different instructional and learning processes rather than stages of education. In common educational philosophy, education refers to an understanding of what is learned, rather than merely the acquisition of learning as an achievement skill. Training, on the other hand, refers to specific habits or skills without specific reference to the insightful understanding. We might say that education is concerned with "why" as well as "what," whereas training is concerned with "how" and "what." Hence, it is possible to have educational success over the entire gamut of mental age and intelligence quotient, although it would be expected that this would be proportionally related. It is also possible to have "training" at the higher levels of intelligence just as it is possible to have "education" at the lower levels.

This philosophy has bearing on admission and termination policies as well as programming of mentally deficient children. The State of Washington provides in its constitution for the education of *all* children without exception. It does not state that such education is necessarily in school classrooms. There are other forms of school services which are carried on outside of common school classrooms. This includes evaluation services, home advisement programs, *etc.* Hence, the educational management of mentally deficient children must reckon with the degree of mental retardation and also any accompanying handicaps. It is generally assumed that a classroom service for the mentally deficient requires certain practical self-sufficiencies, such as ability to get to school without guardianship and the ability to look after oneself after arrival. In other words, this involves the ability to get about as well as the ability to attend to one's personal needs. These abilities may be absent in orthopedically handicapped children or other types of physical disturbances; but in the case of the mentally retarded, it is assumed that such disabilities are related to lack of intelligence, rather than to lack of physical ability.

The child's admission to classroom services would depend upon his degree of maturity for receiving instruction, and also his ability to look after his personal needs. It is recognized that much of the education of the mentally deficient children in the public schools is a substitute for residential schooling. This substitution is partially influenced by the lesser expense of public school education (because the children continue to live at home) and partly by the lack of adequate institutional residential facilities. It is also influenced in part by the general reluctance of parents to place their children in residential institutions because of their feelings of parental responsibility and their fears of institutional shortcomings.

It is presumed that the mentally deficient child, therefore, will be eligible for classroom services (assuming he is physically and mentally able to attend) for the ordinary period of the public school responsibility, namely six to 18 years. It is further assumed, however, that the child might have some preschool educational advisement while at home, as well as a short period of continuation education after the age of 18 while he is achieving his adult occupational adjustment either at home, in sheltered workshops, or in some type of competitive or noncompetitive supervised employment. This termination age will be determined in part by the child's continuing profit from instruction in the curriculum characteristic of the educational program. It is specifically assumed that this educational program is not a "babysitting" undertaking; but, rather, that the curriculum can be so designed that each child, no matter how severely retarded, will profit from it to some encouraging degree.

Program. The program itself will be necessarily related to the degree of maturity of the children concerned. Here, again, mental age is more important than IQ in determining the program, since the level of maturity is more important than its relative degree. Hence, the programs will require some degree of differentiation in pupil selection, such as preschool, pre-primary, nursery or vestibule education, and the progressive groupings corresponding approximately to the lower elementary and upper elementary levels of ordinary school management. It is anticipated that substantially no mentally deficient child will enter junior high, and certainly not senior high, with any prospect of profit. Indeed, such secondary school placement is usually contrary to the child's best interests, as well as contrary to the best interest of the school itself.

On the other hand, when the mentally deficient child reaches adolescence and would be eligible for secondary education on an age basis alone, he will

undergo changes in growth and development which means that it is impracticable to assimilate him even in an elementary program. At this time some type of termination program is desirable, and some type of partial segregation from the elementary classes is necessary in order to avoid embarrassment to the child, as well as to the average normal pupils and their parents. A sense of belonging needs to be sustained, and this is difficult to maintain when the mentally retarded child reaches levels of physical development and conspicuousness which are no longer practicable for management in the regular elementary classes. On the other hand, it is suggested that classes for the mentally deficient retarded, while congregating such children apart from the average normal pupils, should still contain them within standard elementary schools. This reflects a combination of segregation and integration which has the advantages of serving the best interests of the normal children by the removal of the deficient children, and promoting the best interests of the deficient children at the same time. This is because the deficient child is a serious drag on the regular classroom without benefit to himself, but with detriment to the others. In a special classroom the curriculum and classroom management can be adapted much more successfully to the individual children's needs, and the sense of belonging and achievement among their maturity peers as contrasted with age peers is much more gratifying.

The academic program would be minimal and the socialization program maximal in such a group. At the upper extremity of maturity and age, some accommodation would be made to the experiential sophistication of the children and an approximation toward lower adult levels of experience, even if immature in scope. This would mean that at the upper levels of age and maturity for mentally deficient children the occupational program would be major and the academic program, minor. The academic achievement of the mentally deficient children is generally limited to, at best, the fourth school grade. This would normally be accomplished between mental ages of approximately seven and 10 or 11 years.

It is distressing to pursue an academic program from which the children cannot profit and in consequence of which they incur continuing frustrations. Since the management of mentally deficient children is partly influenced by mental hygiene principles and the concept of supportive education, or educational therapy, the psycho-dynamic or emotional and motivational features of the classroom should receive first consideration. This is partly accomplished by integration of the special class into a regular school building. The problem of integration, however, is influenced by a number of practicable variables important among which is the actual size of the school district. Whether to use special classes in the regular school building or in a segregated center will depend in part on the transportation facilities, as well as the general density of population and complexity of civic circumstances.

As already indicated, by the time adolescence is reached, the mentally deficient child fits neither into the elementary program nor the secondary program and at this period segregation in a separate facility is desirable. However, this facility might be a facility attached to an elementary school in order that the administrative integration of special with general education can be maintained at maximum practicability. In larger school districts, however, a vocational type of school may be of sufficient size so that it accomplishes its own integration and is not considered essentially as segregation for educational purposes.

Class Load. The class load in such a program will depend on the degree of over-all homogeneity in mental maturity and behavior control. The size of the class, therefore, will depend upon how much homogeneity can be achieved with reference to the various variables concerned. Homogeneity, therefore, must be thought of not in terms of any single variable, but in terms of a cluster of variables. This would include age, sex, size, degree of maturity, clinical type of deficiency, *etc.* Ordinarily this class load is feasible to a minimum of 12 children and a maximum of perhaps 15, or at most 18. Many such classes are feasible with class loads below 10, but not much above 15. The classroom enrollment is related to classroom attendance because, in general, the attendance of mentally deficient children is reduced because of various circumstances which ordinarily do not equally affect normal children. The physical facilities for such classes will, likewise, depend upon the characteristics of the children

concerned. In the case of the more severely retarded and younger children, these facilities would be largely those of nursery school and kindergarten variety; namely, freedom in the management of furniture and over-all playroom type of regular materials.

The mentally deficient children frequently have multiple handicaps. Insofar as these require personal attendance, it may be necessary to employ teacher assistants, or attendants, who need not be fully certified teachers. This would permit enlargement of classroom size for purposes of economy, since such an attendant or assistant teacher would be able to relieve the teacher in charge from certain duties and permit her to give more attention to the class as a whole.

Teacher Qualifications. The qualifications of teachers for the mentally deficient retarded involve a relatively larger emphasis on personal qualities of understanding and empathy with children than is the case in the regular classroom. The teacher of the mentally deficient also needs more intimate and practical knowledge of child development and management because of the essentially individual character of the needs of the children in her charge. It is also helpful if she is prepared in the general content knowledge of mentally deficient children and their evaluation, even though the larger professional responsibility in this regard rests on the school psychologist. A reason for this is that frequently the teacher's observation and the child's response to the special classroom program become a part of the school psychologist's total evaluation of this child. Frequently the clinical determination is not confirmed without actual classroom experience.

Cost. The cost of special education for mentally deficient children is principally influenced by class size. If the ordinary class has 30 children, while a class for the mentally deficient has, let us say, only 10, then the cost of education is tripled in teacher cost and classroom cost. This means that the ordinary school district is reluctant to make such a heavy differential investment in children of so relatively little educational promise; hence it is necessary for the local school district to receive state aid if such programs are to be developed to any significant extent. In the State of Washington this state aid is available through "handicapped funds" allocated to the local school district on the basis of actual, or proposed, programs with reimbursement for actual excess costs.

References

1. Abraham, W. *The slow learner.* The Center for Applied Research in Education, in press. Prentice-Hall.
2. Clarke, Ann M., & Clarke, A.D.B. (eds). *Mental deficiency: The changing outlook.* Glencoe, Ill.: The Free Press, 1958.
3. Davies, S. P., with Ecob, Katherine G. *The mentally retarded in society.* New York: Columbia University Press, 1959.
4. Doll, E. A. Classroom management of slow learners. *The Slow Learning Child,* Vol. 7, No. 2, Nov. 1960, 91-95.
5. Doll, E. A. The essentials of an inclusive concept of mental deficiency. *Am. Jour. Mental Deficiency,* Vol. 46, No. 2, Oct. 1941, 214-219.
6. Doll, E. A. The feeble-minded child. In L. Carmichael (ed), *Manuel of Child Psychology.* New York: John Wiley and Sons, 1946, 845-885.
7. Doll, E. A. Feeble-mindedness versus intellectual retardation. *Am. Jour. Mental Deficiency,* Vol. 51, No. 3, Jan. 1947, 456-459.
8. Doll, E. A. Idiot, imbecile, and moron. *Jour. Applied Psychology,* Vol. 20, No. 4, Aug. 1936, 427-437.
9. Doll, E. A. The nature of mental deficiency. *Psychological Review,* Vol. 47, No. 5, Sept. 1940, 395-415.
10. Doll, E. A. The social basis of mental diagnosis. *Jour. Applied Psychology,* Vol. 24, No. 2, April 1940, 160-169.

OPENINGS for teachers of Special Education, either fully qualified or provisionally qualified.

Areas include: Trainable Retarded, Educable Retarded, Brain Damaged, Slow Learning, Emotionally Disturbed, Aurally Handicapped, and Blind and Partially Sighted. Salary schedule from $5000 to $7700 dependent upon training and experience.

Please address replies to: MR. PAT DISKIN, Coordinator, Dept. of Physical and Mental Health, Clark County School District, P. O. Box 551, Las Vegas, Nevada.

CLOTHING FASTENING DEVICES
Individually Framed
Teach: SELF HELP, SELF CARE
For information fill out form

TRAIN AIDS
P.O. Box 4053
Rochester 10, New York

NAME_____
ADDRESS_____
CITY_____
STATE_____

Presidential Address Abstracts
from CEC Detroit Convention

STATUS OF THE COUNCIL IN RELATION TO TRENDS in the education of exceptional children

JACK W. BIRCH

SPECIAL education is rapidly expanding. Mackie and Robbins have reported sharp increases over the past quarter-century in the number of school districts with special education programs. They note equally marked increases in numbers of children enrolled in special education, and a clearly discernable tendency for more school districts to extend special education services to children at earlier and earlier ages. While I have no new figures on the upper ages, I have the strong impression that in school districts all over the country exceptional children are staying in educational programs farther into their teens. This is accomplished in some cases by extending more secondary school opportunities. In other cases it results through sheltered workshops which may or may not be part of the school system. The dramatic quality of the total growth picture is shown by the fact that for every *one* child in special education in 1948, there are now probably about three children in special education in this country.

The children for whom programs have expanded most rapidly are the gifted and the blind. My own observation strongly suggests that programs for trainable retarded children and emotionally disturbed children have spurted sharply in recent years, too.

Where does The Council for Exceptional Children stand in relation to this trend?

The Council is growing, too. The growth, according to data brought together by Frances Connor and members of the Council staff, is in several significant directions. Growth in number of members is first, and probably most important. The Council has more than two times as many members than it had 10 years ago. The Council has grown also in number of chapters, federations, and diversified divisions. The Council stands well in relation to the growth trend of our field.

Quality Teaching

The second trend is a heightened concern for the quality of teaching in special education. Members of boards of education, university students, college presidents, parents of exceptional children, and state directors of special education—these and many others have expressed concern that the quality of teaching in programs for exceptional children be maintained and elevated.

What is the position of CEC on this matter? What has the Council done? Council officers have spoken out against emergency certification of teachers with inadequate preparation. The Council has supported and promoted federal legislation aimed at preparing teacher-educators and supervisors and directors of special education. The international convention and regional conferences have stressed meetings which help teachers to improve the quality of their work. The same is true of the many publications of the Council for practicing educators. Working through its Interagency Committee, the Council has initiated a project on professional standards which, if it accomplishes its purpose, will help to bring into being a nationwide set of professional standards for the preparation of educational specialists with exceptional children. Your Council has moved most effectively, following the ideas suggested by George Washington when he said, "Let us raise a standard to which the wise

• JACK W. BIRCH, chairman, Department of Special Education, University of Pittsburgh, is now completing his term as CEC President. This abstract is of his presidential address to the 39th annual international convention of CEC, held in Detroit, last month.

and honest may repair." In its chosen field, that is what your Council is doing.

Working with Others

There is a continued trend to stress the multi-professional nature of our work, but the focus of the group is always on the exceptional child. Sometimes the teacher is calling the signals; sometimes it is the recreation leader; sometimes the camp and recreation director, and sometimes the physician.

How does the CEC relate to the increasing trend for persons of varying professions to work together in behalf of exceptional children? Where does the Council stand?

No other organization has welcomed both lay and professional persons by such a broad membership principle.

I have a report on the composition of our membership, as a result of a staff project initiated many months ago. It included 20% of our membership as a sample. About 25% of the membership is made up of persons *other* than special education teachers, speech therapists, and supervisors and directors of special education. Depending upon how you chose to define the categories, from 10 to 25% of the membership seems to be persons other than special educators. I can tell you something of the range of CEC membership from my own state, Pennsylvania, as the direct result of the work of Dinger, Watson and Ortman. Almost one-fourth of the membership is made up of persons other than teachers of exceptional children, and about 10% of the Pennsylvania Federation membership would be in classifications other than education altogether.

It is characteristic, also, of Council meetings that all professions are included. The program for this convention is a good example. On it you find teachers, psychologists, physicians and all others in that constellation of professional persons required by the various needs of exceptional children.

The Council for Exceptional Children is a meeting ground and a forum for the multiplicity of professions concerned with the education of exceptional children, and the Council is an instrument which focuses the attention of all professions upon education.

Parent Groups

Another major trend has to do with organizations of parents of exceptional children. Many of you here took active part in fostering and guiding the parent groups as they started. Now, parent organizations have moved beyond pre-occupation with solving individual problems of the parent members. Now, parent groups are impressive forces to be reckoned with in local communities, in states, and on the national scene.

What of the Council for Exceptional Children in relation to this trend? The CEC finds that many of its own objectives are highly compatible with the objectives of parent organizations, and continual consultations are going on together. This is true mainly at the national level, but it is often true also at the federation and the local chapter levels. The Council is one of the few national organizations which has welcomed the representatives of parent groups into its local chapter membership from the outset. The Council does stand as a willing partner with parent organizations in their trend toward leadership in developing and expanding the education of exceptional children.

The Role of the Teacher

The fifth great tendency is one I note with the greatest of pleasure. It is the tendency toward a clearer definition of the role of the teacher in the education of exceptional children. There is less inclination now, than in previous years, to assume that just any human impairment calls for special education. There is less inclination for the teacher to confuse his role with that of the physician, the psychologist, the social worker, or other cooperating professionals. There is less inclination for the teacher to try to assume an overall management role in dealing with the lives and families of exceptional children.

The Council has contributed strongly to the sharpening of the image of the special educator. Professional meetings have played their parts, and so have the many philosophical journal articles which have dealt with aspects of the popular image, the professional image, and the appropriate self-concept of the specialist in the education of exceptional children.

A closely related phenomenon has been the trend toward a clear-cut and more widely accepted pattern for the professional education of teachers of exceptional children. I am sure full agreement has not yet been reached, but there does seem to

be a strong majority opinion that the professional education of teachers for special education must contain at least three major parts: (1) Instruction in the social, cultural, physical and psychological characteristics of the children to be taught. (2) Instruction in the particular educational procedures, methods, equipment, materials of instruction, physical plant, and curricula appropriate to that condition, and (3) Supervised practice in the conduct of the education of exceptional children. Reports emanating from the U.S. Office of Education, from various professional teacher groups, and other national organizations stress this concept.

The Council has participated fully, from its international office and from its division and its committees in the activity which produced this important trend. The Division of Teacher-Education plays a very significant role in this area.

Federal Concern for the Exceptional

A very marked new tendency is now apparent for the national Congress to concern itself with special education. The Cooperative Research program of the U.S. Office Of Education was started with financing for research in mental retardation. A year-long study was made in special education and rehabilitation by a subcommittee of the House Committee on Education and Labor. Fellowships from federal funds were provided for preparing leaders in the education of the mentally retarded. In Congress at the present time are several legislative proposals which, if passed, would markedly accelerate progress in all aspects of our field.

Your Council has taken aggressive stands and has exerted powerful influences in the growing concern for special education in Congress as well as in the executive branch of the federal government. In all cases, the Council has attempted to give full consideration to the roles and the prerogatives of other interested organizations. At the same time, the Council has not abrogated its responsibility to speak for you—for all of you who band together for the avowed purpose of making your voices heard wherever the education of exceptional children is discussed. Your Council stands for cooperative and, when possible, coordinated national legislative activities.

Research Needs

To move on to another trend—no word has been so much on the tongues of special education in the past year as "research." There seems to be a strong tendency to re-emphasize the need for research and to re-dedicate a substantial portion of our mutual energy to the conduct of research. Of course, research itself is nothing new with respect to exceptional children. What does seem to be new is research directly on the *education* of exceptional children by *educators* sophisticated in research. The research monograph series of the Council is one major evidence that the Council stands in the vanguard of this movement. Another very significant fact is that the Council has initiated, with a planning grant from the NEA, studies on the psycho-educational processes in the education of emotionally disturbed children. We are in a very favorable position with respect to the research trend. We are not just listening to talk about it—neither are we just *talking* about it, ourselves. Your Council is *actually participating* in the shaping, the conduct, and the utilization of *educational* research on the *education* of exceptional children.

Advanced Preparation

It does seem to me that we are moving toward graduate study in the preparation of teachers for exceptional children. All of professional education seems to be moving toward the graduate level. There is a growing interest in the idea that all persons who attend college should acquire both a full liberal education and a full professional education.

I do not mean that teachers of exceptional children should first be trained as elementary teachers at the undergraduate level and then, perhaps after some regular grade experience, earn a graduate degree in special education. That is the way many from my generation moved into special education, and it was effective. I feel, however, *that* process may be *replaced* by one which gives a four-year undergraduate liberal education, with admission to graduate study for the profession of special education being applied for and granted during the junior and senior years, and with the masters degree bring the badge of readiness to begin to teach. Our Council has yet to make up its mind as to whether this possible trend is one which should be studied further.

The next trend I wish to note is number 10. It is one of the most exciting and promising of all for the practicing teacher. There has been a marked

upswing in very recent months in available materials of instruction for exceptional children. For years, publishers refused to consider marketing special books and other special instructional equipment for exceptional children. Now, we find that they are moving rapidly into the production of instructional materials designed specifically for exceptional children. For many years special education teachers have made most, if not all, of their own instructional materials. This was especially true for teachers of mentally retarded children and speech handicapped children. Now, we find that there are books being prepared specifically for pupil use in both those areas, as well as many others.

The Council has promoted the interest of educational publishers in many important ways. Through invitations to exhibit, and through indications of the needs of our members, the point has been repeatedly made. Probably as influential as any other fact has been our rapid increase in membership, which has tended to convince publishers and manufacturers that we constitute a large enough market to be a profitable one. Whatever the reason, I am sure this is a direction which is welcomed by teachers.

Have you noticed the increasing number of colleges which are requiring that all teacher-education students have a survey course in the education of exceptional children? I subscribe to the idea that a full and complete special education program should be available to every exceptional child who needs it. But I also face the fact that, in spite of our rapid growth, three out of every four exceptional children in this country are still in regular classrooms instead of special education programs. I know you share my enthusiasm for the trend which would require that *all* teachers have some *basic* understanding of the education of exceptional children.

At the international level, there has been a limited amount of interchange on this point. Perhaps this trend can be supported and furthered through our many contacts with other departments of the NEA and its Canadian counterpart. The Council has the potentiality to press this trend forward, but little has been done here in comparison with some of the areas in which the Council has been more energetic.

Day and Residential Programs

Closer relationships between day school programs for the exceptional and residential school programs is another trend. This is true in the field of the mentally retarded, the blind, the physically handicapped, the deaf, and in that evolving field, the emotionally disturbed. Special education leaders seem to be concluding that there are many other educationally significant concerns which can overweigh where the child happens to be receiving his education. There is a closer relationship, too, between the persons who conduct residential and day programs. Much of the reduction of this barrier is due to the constant attitude of CEC that all who are part of the education of exceptional children should be brought together and should have opportunities to work together.

Needs of the Exceptional Recognized

I point to another trend in this same general direction. The education of exceptional children is being accepted and used more and more as a unit of instruction in the training of professions other than educators. In schools of nursing, schools of social work, medical schools, schools of public health, dental schools—I have found one or more of three things happening. One—in some, they are offering survey courses or sending their students to take survey courses in the education of exceptional children. Two—they are inviting specialists in the education of execptional children in for lectures and for conferences and discussions with students and faculty alike, on the education of exceptional children. Three—they are, in the course of practicum or internship, giving their students direct observation experiences in the education of exceptional children. This trend is another which I am sure you would want your Council to continue to encourage.

Take the proverbial grain of salt with the next trend I mention, if you find it is necessary. I notice that professional personnel from the fields of rehabilitation and special education are seeing more of each other. They are finding that their goals, objectives and methods are very similar, at certain points. They are discovering that the problems, concerns and issues in their respective professions are more alike than different. A number of colleges and universities across the land have organized their professional education in special education and rehabilitation together.

Another trend in which CEC is playing a role is

the acceptance by communities of the responsibility for the whole life span of the exceptional person. For a long time, special educators have said that very early identification could allow the forces to be brought to bear which would prevent many of the problems we see when children come to school. We have said, also, that communities could, if they would, deal effectively and economically with many of the exceptional persons who are spending their lives in residential centers away from their homes. The reiteration of these views, and the occasional demonstration we have presented, along with heightened awareness of the essential humanity of exceptional children which has been so impressively fostered by the parent organizations, have combined to produce a new and strong trend. More and more groups are studying ways of managing the whole life of the exceptional person in the sphere of the community. This has tremendous implications for society.

Planning for the education of exceptional children at the national, regional, and state levels is a trend which is becoming more and more evident. The recent federal legislative studies and acts are evidences of national consideration. The work done under the auspices of the SREB and, more recently, WICHE, are clear demonstrations of regional planning. And state after state in this country has developed the equivalent of a state-wide plan for special education. Such planning has been promoted by the Council and by its federations. CEC, I hope, will involve itself more and more in such broadscale planning, giving consultation and staff help, for we must be the professional watch-dog to be sure that the rights and privileges of all interested exceptional children in local communities are safe guarded against the possible prescription of educational conditions which might seem appropriate from afar but which are not suited to individual local situations. CEC has yet to define its role in national, regional and state level planning.

Another trend I am pleased to report brings a new vitality to our work, for it is the trend that brings lay groups and professional groups together. Service clubs, fraternities, lodges, and similar organizations of citizens are teaming with CEC and other professional organizations in behalf of the education of exceptional children. This has many values.

Local CEC chapters are working more and more with lay groups, and this is one of the most healthy activities in which chapters can engage.

Finally, the last two tendencies I wish to note must be discussed together. They are a new and higher quality in our evolving leadership and a heightened appreciation for the importance of the special education teacher by other professions. Look about you. Study the program of this convention and of the regional meetings we have seen this year in Baltimore and Oklahoma City. Certainly you will find on the program many of the persons who do, year after year, make great contributions to our professional growth. But you will also find a continuing upsurge of new names and new personalities—and the magnificent thing about it is that new names and new personalities are encouraged to participate in the Council's professional meetings and in the Council's government. And I know I express the feeling of you all when I say I hope and believe that the evolving leaders will far surpass the levels of understanding we have today.

This is the spirit of CEC which has elevated the status of teachers of exceptional children in the eyes not only of the rest of the teaching profession but also in the eyes of all the professions with which we work. I am proud to be one with you, knowing that I share with you the high regard of our professional colleagues who work with us.

Somerset Maugham wrote, "If you refuse to accept anything but the best, you very often get it." Couple Maugham's statement with that of George Washington, "Let us raise a standard to which the wise and honest may repair." Together they represent what CEC stands for through all the trends —ups or downs—favorable or unfavorable.

EXCEPTIONAL CRAFTS FOR EVERY TYPE PROGRAM

Write for our FREE 1961 Catalog of HANDICRAFT SUPPLIES and IDEAS, if you have it, ask about our Ball and Chain Craft

CLEVELAND CRAFTS CO.

4 East 16th St. New York 3, N. Y. | 5832 Chicago Ave. Chicago 51, Ill. | 4707 Euclid Ave. Cleveland 3, Ohio

CLECO CRAFTS 2112 8th Ave., S. Nashville 4, Tenn. | 2800 Sunset Blvd. Los Angeles 26, Calif.

WANTED for publishing

Reading materials written for retarded children. For information on how to submit your manuscript, royalty rights, etc. write to:

Editorial Staff, Touch Inc., 138 Sims Rd., Syracuse 10, New York

Wiley BOOKS

READY IN MAY 1961

Now revised to cover the newest tests, the most recent research

MEASUREMENT AND EVALUATION IN PSYCHOLOGY AND EDUCATION

SECOND EDITION

By ROBERT L. THORNDIKE, *Chairman, Department of Psychological Foundations and Services; and* ELIZABETH HAGEN, *Associate Professor of Education; both of Teachers College, Columbia University*

Because of the widespread acclaim accorded the first edition for clarity, fairness of evaluation, and excellent coverage, this new edition retains the major approaches and content. Much, however, has been added, some changing around has been done, and in general the whole treatment updated.

Major revisions and additions

- To stimulate the reader to think more deeply on *what* he wants to measure and *why* he wants to measure it, the discussion on defining objectives and planning tests has been greatly expanded. Procedures for developing a test blueprint are developed in more detail.
- Guides and maxims for preparing objective test items are now much more thoroughly explained.
- The section on validity has been completely rewritten, now being covered in three parts: 1) validity as *representing,* in which test validity is judged by how accurately the content matches instructional goals; 2) validity as *predicting,* in which test validity is appraised by the accuracy with which the test forecasts some criterion of school performance; 3) validity as *describing,* in which validity is evaluated in terms of the extent to which the test score contributes to a meaningful picture of an individual.
- Material on aptitude testing rewritten to include new data on validity of aptitude test batteries.
- Chapter on school testing programs rewritten to give more attention to the practical mechanics of these programs.
- Material on education and vocational guidance tests now reflects a more realistic illustration of the guidance program and the type of test information most relevant in handling this problem.

May 1961 Approx. 640 pages $6.95

Send now for your on-approval copy

JOHN WILEY & SONS, Inc.

440 PARK AVENUE SOUTH, NEW YORK 16, N. Y.

Card of Thanks

This is to express Mrs. Wooden's and my appreciation, both to the Michigan Federated Chapters and to the Council as a whole, for the co-sponsored recognition luncheon presented for me at CEC's international convention, Saturday, April 8. Also, I wish to extend personal thanks to all persons, organizations, and Council units that participated, directly or indirectly, in that or the other occasions of the week in which I was honored.

The beautiful gifts and tributes were generous beyond measure or deserts, but, nevertheless, deeply cherished. It is my hope to find opportunity in the near future to thank all in a more personal manner than is afforded through these pages.

In the meantime, please accept our sincere gratitude for everything.

Harley Z Wooden

JACK W. BIRCH SUCCEEDED BY LEO F. CAIN, ON JUNE 1

One year is a short period to allot the president of an organization, especially if it is necessary that his program be consummated during his term of office. Fortunately, however, the continuity of effort that has been built into Council operations makes such haste unnecessary. As a result, projects of larger dimensions and greater significance are possible. In fact, very few of the more important undertakings initiated by any Council president are completed during his administration.

On June 1, the presidency of this organization passes from Jack W. Birch of the University of Pittsburgh to Leo F. Cain of San Franisco State College. With that transfer will go a number of interesting projects. Dr. Cain is vice president of the institution he serves. Formerly he directed San Francisco State's teacher preparation program in the education of exceptional children and he still engages in lecturing, counseling, and related activities in this field. The Council looks forward to his administration, both in terms of the advancement of projects already under way and proposals that he will make for new undertakings. In the meantime a review of 1960-61 accomplishments under President Birch is in order.

Projects Dr. Birch carried foward from previous administrations include the addition of one research monograph, *Procedures for Teaching Trainable Children,* two publications in the administration series, *Children with Impaired Hearing,* and *Educable Retarded Children in Elementary Schools;* the completion and adoption of a revised constitution and set of bylaws; and continued activities in the area of federal legislation.

New undertakings, all of which are in the process of development, include:

1. A survey of the composition of CEC membership, under the direction of June B. Jordan, director of Council membership and sales.

2. A study of the role of state and provincial federations (including the relationship and problems of big city chapters) and the development of materials and procedures for effective federation operation. Richard J. Hess, president of the Pennsylvania Federation, is chairman.

3. Initiation of steps to clarify relationships between divisions and International, for the mutual advantage af all concerned. Two meetings have been held—one to consider the general aspects of the problem and one to consider convention planning.

4. A project initiated with the cooperation of other organizations, designed to establish and/or improve professional standards in the various areas of special education. Jack W. Birch, chairman.

5. A project to identify and study the psychoeducational processes used in the instruction of emotionally disturbed children. Godfrey D. Stevens chairman.

6. A project, to conduct a limited number of research institutes, the purpose of which is to assist special educators in the field to gain a more thorough understanding of research design. This is a cooperative venture between the CEC, the Council of Administrators of Special Education in Local School Systems, and the Cooperative Research Branch of the United States Office of Education. The CEC executive secretary will coordinate this project.

7. The establishment of a search and screening committee last fall to find and identify outstanding candidates for the position of executive secretary of the Council to succeed Harley Z Wooden, who retires June 30. As previously announced, William C. Geer of the Southern Regional Education Board, has been named. He will take office July 1.

President Birch has given freely of his time toward a year of aggressive leadership in the furtherance of a dynamic Council program and carries with him the sincere appreciation of the membership for the success he has achieved.

DELEGATE ASSEMBLY ADOPTS NEW RATES FOR SUBSCRIPTIONS AND MEMBERSHIPS

The Council has found itself financing from regular membership funds an increasing number of activities that should be contributing more to the support of the Council program. In fact some activities have not been self-sustaining when the total costs, including staff salaries were included. As a result, the delegate assembly voted to establish a number of these activities on a self-supporting basis and, where appropriate, it voted to make others financially contributory to the Council's program. Only in this way can regular membership funds become available in full, for the advancement of that program on its many fronts of operation.

Three items on which action was taken are reported below. Others will be reported in an early fall Journal issue. The three concerned are library subscription rates to the Journal, life membership rates, and 16-month enrollment rates for new memberships.

SUBSCRIPTION RATES

The following library subscription rates for EXCEPTIONAL CHILDREN were made effective with orders for January 1-December 31, 1962:

Canadian and American libraries, agencies, and organizations: $7 per year; $1 per single copy.

Postal Union country libraries, agencies, organizations, and persons: $8 per year; $1.10 per single copy.

Libraries, agencies, organizations, and persons of countries, other than above: $9 per year; $1.20 per single copy.

LIFE MEMBERSHIP RATES AND PAYMENT PLANS

In order that the Council's life membership rate be consistent with regular membership dues, and the fund adequate for the purpose for which it was established, the delegate assembly set life membership rates at $225 cash or $25 per year for 10 years ($250 total). These rates become effective June 1, 1961. Memberships at the $150 rate must be received in the CEC headquarters office by May 31, 1961, to be processed at that rate.

SIXTEEN-MONTH MEMBERSHIP RATES

For 1960-61 the minimum special 16-month membership rate for new members is $9.70—an additional $1.20 above the regular annual fee. Because $1.20 does not pay the cost of the four "extra" journals, the delegate assembly increased the minimum 16-month membership rate to $10.50, an additional $2 above the regular $9.50 annual fee—which is still a bargain. Computed on the basis of one-third of a 12-month membership year, the saving is 83¢, but computed on the basis of a nine-month Journal subscription year, the savings is $1.77.

This increase, becomes effective with 16-month memberships for Sept. 1961-Dec. 1962.

COUNCIL TO CONDUCT SURVEY TO DEFINE MEMBERSHIP COMPOSITION

How many CEC members are classroom teachers? Speech therapists? Administrators? Psychologists? Teacher educators? What percentage of the Council members are concerned with mentally retarded children? Gifted? Blind? Crippled? Other types of handicapped children? To answer these and other questions regarding the composition of its membership, the Council will conduct a special survey.

During this May, a questionnaire, designed to solicit pertinent membership information, will be mailed to each CEC member. The final results of the survey will be of great value to the Council in developing and planning such projects and activities as journal articles, special publications, membership promotion, convention programs, and the like.

Council members are urged to complete and return the form to CEC headquarters as soon as possible after its receipt. The success of the survey project depends upon each member's participation in the study.

MAMIE JO JONES IS PRESIDENT-ELECT

Mamie Jo Jones as CEC president elect brings to that office a wealth of professional experience and service to the Council on all levels of endeavor. Her Council responsibilities on the local, national, and international levels and her work as president of the Atlantic Area Chapter, Georgia state membership chairman, governing board member, and CEC recording secretary all qualify her for the important professional work ahead. In her career position as coordinator, Services for Exceptional Children, State Department of Education, Atlanta 3, Georgia, she has been recognized for her outstanding contributions, including being cited as Georgia's Woman of the Year in Education for 1960.

CHANGES IN EXECUTIVE COMMITTEE

The new constitution went into effect immediately, upon its adoption in Detroit on April 6, 1961—changing the size of the executive committee of the board of governors and the titles of some of its members. As of this date, your executive committee consists of three officers, one governor-at-large from Canada, and four governors-at-large from the United States. Three executive committee members—Selznick, Chidley, and England—were recommended by President Birch and confirmed by the board of governors. Each will hold office until May 31, 1962. Their successors will be elected next

April in Columbus, Ohio, by the 16th delegate assembly.

Your present executive committee is as follows:

Officers

Jack W. Birch, president
Leo F. Cain, president-elect
June P. England, for the U.S. (effective June 1)

Governors-at-Large

Nadine Chidley, for Canada (effective June 1)
Frances P. Connor, for the U.S.
Harrie M. Selznick, for the U.S.
Ivan K. Garrison, for the U.S.
Mamie J. Jones, for the U.S.

On June 1, the beginning of the new administration term, the executive committee will consist of the following:

Officers

Leo F. Cain, president
Mamie J. Jones, president-elect
June P. England, first vice-president

Governors-at-Large

Nadine Chidley, for Canada
Jack W. Birch, for the U.S.
Frances P. Connor, for the U.S.
Harrie M. Selznick, for the U.S.
I. Ignacy Goldberg, for the U.S.

CEC RESOLUTIONS ADOPTED AT DETROIT CONVENTION

1. The Council for Exceptional Children records its appreciation and expresses its gratitude to the many individuals, groups, and agencies, who have so generously contributed their time, efforts, and abilities in making the 39th annual convention an unusually significant one:

   To the co-chairmen and all members of the Committee on Local Arrangements, Michigan CEC State Federation, the Detroit CEC host chapter, the Windsor CEC chapter, and the many Michigan local chapters of CEC;

   To the Detroit, Wayne County, Macomb County, and Oakland County Schools;

   To the Detroit Board of Education, the state and private agencies, and co-sponsoring agencies;

   To the chairmen and members of the Program Committee, all participants, and co-sponsoring agencies;

   To the Detroit City Schools Public Information Unit, the National Education Association, and the Detroit press, radio and television for their generous cooperation and excellent interpretation of our program;

   To the Detroit Convention Bureau and the staff of the Statler Hilton Hotel.
2. The National Education Association deserves appreciation for its continued service and support. A recent grant for a study of emotionally disturbed children is gratefully acknowledged.
3. Commendation is due members of the editorial board and of publication committees of the Council for the excellent quality of their work.

The Divisions are especially grateful for the support that they receive from EXCEPTIONAL CHILDREN.

4. The Council recognizes and commends the work of the National Association of Radio and Television Broadcasters and those TV and radio sponsors who have increased public knowledge and awareness of the needs and problems of exceptional children and youth through carefully documented programs based on professional research.
5. The Council is cognizant and grateful for the increased coverage that is given to exceptional children and special education by the publishers of the newspapers, magazine trade journals and other information media; we commend individuals, schools and agencies for promotion of such publicity and urge that it continue.
6. The Council commends the Honorable Carl Elliott for his unfailing and continued interest in the education of all exceptional children.
7. The Council wishes to relate its legislative goal to the Honorable John Fogarty, Senator Lister Hill, Congresswoman Edith Green and Congressman Adam Clayton Powell that new and expanded federal legislation to meet the needs of special education to be a priority item of the 87th Congress.
8. To Dr. Sterling McMurrin, the Commissioner of Education of the U. S. Office of Education, the Council extends official congratulations upon his appointment to this important position. The Council hopes to continue the fine cooperative relationship with the U.S. Office in strengthening and expanding special education programs.
9. To the President of the United States, John F. Kennedy, the Council wishes to convey its appreciation for his expressed and demonstrated interest in the education of all exceptional children.
10. The Council for Exceptional Children urges the expansion of the UNESCO program to include services to all types of exceptional children and recommends that a professionally trained educator be appointed to the secretariat to provide leadership and coordination of this program.
11. The Council commends the International Society for Rehabilitation of the Disabled for sponsoring the 1st International Seminar in Special Education held at West Point in August, 1960, thereby establishing international understanding of the educational needs of all types of exceptional children.
12. The Council gratefully acknowledges the outstanding work of the Inter-Agency Committee and its participating interest and support in

REPORT OF THE SUBCOMMITTEE ON NECROLOGY
39TH SPRING INTERNATIONAL CONVENTION
DETROIT, MICHIGAN

The Council memorializes and expresses sorrow in the passing of:

Elise H. Martens, an outstanding leader in the nation in the education of exceptional children. Member of the East Bay Chapter 119, California.

Roy Street, a private practicing child psychologist of Grand Rapids, Michigan, founder of a remedial reading clinic in that city, and an author and lecturer in the field of education of exceptional children.

John Fintz, assistant superintendent in charge of special education, Cleveland, Ohio. Member of the Cleveland Chapter of the Council for Exceptional Children.

Irving Lorge, professor at Teachers College, Columbia University, psychologist and researcher who assumed leadership in increasing knowledge and understanding of handicapped and gifted children.

Beulah S. Adgate, the Council's first paid membership secretary and business manager, who maintained the organization's office in her home at Saranac, Michigan.

Newell Lewis Perry, internationally known for his achievements as head teacher and director of advanced studies of the California School for the Blind, Berkeley.

Respectively submitted
Leo Breur

---

the establishment of services for exceptional children.

13. An expression of appreciation and congratulation is due to the Baltimore and Oklahoma City Chapters and many conference participants and contributors who made the fall regional conferences in 1960 successful.
14. The strength, character and effectiveness of this organization lies in the membership. Therefore, the delegate assembly recommends that the officers of each chapter and federation give first attention to the building up of membership. In addition, each chapter and/or federation should sponsor a new chapter in any area not presently fortunate enough to have one. The membership goal of CEC is set at 25,000 by 1965. The achievement of this goal can be attained only through the efforts of its present membership.
15. The Council wishes to recognize at this time, Harley Z Wooden who has served the Council continuously for more than 30 years. Through his leadership and administrative ability he has guided the Council to its present status as an international professional organization.
16. The Council wishes to recognize the contributions of the late Elise H. Martens. Her life's work, international in scope, will long continue to have a profound influence upon the education and welfare of exceptional children and youth.
17. The Executive Committee of the Council for Exceptional Children is directed to write appropriate letters to the individuals and organizations mentioned in the foregoing resolutions.

Respectively submitted,

Mary Krider — *John Lee*
Fredericka M. Bertram — *Thelma Stack*
Norris Bush — *Donald Warren*
Frances Connor — *Lucille Workman*
Helena G. Adamsen, Chairman

FEDERATIONS, CHAPTERS RECEIVE CHARTERS

Two state federations, one state chapter, and eight local chapters were presented charters during the Delegate Assembly session in Detroit. Council units so recognized are:

Number	Federation or Chapter	State
319	South Carolina State Federation	S. C.
318	Washington State Federation	Wash.
341	North Dakota State Chapter	N. Dak.
329	Columbus Chapter	Ga.
336	Lake County Chapter	Ill.
335	Union County Chapter	N. J.
337	Bergen County Chapter	N. J.
37	Central Western New York Chapter	N. Y.
297	South Shore, Long Island Chapter	N. Y.
112	Central Pennsylvania Chapter	
294	French Creek Valley Chapter	Pa.
322	Fayette County Chapter	Pa.
349	Upper Cumberland Chapter	Tenn.
31	Milwaukee Chapter	Wis.

THANKS FOR DETROIT!

Many thanks indeed go to all those responsible for success of the recent 39th annual international CEC convention held in Detroit. The Michigan Federated Chapters and the Detroit Chapter of the Council deserve a special bow—as does Program Chairman Leo F. Cain and his sub-chairmen and program assistants. The local arrangements under the direction of Chairman Paul H. Voelker, his area people, and the members serving on the convention operating committees are others deserving applause for their cooperation. Space and time limit us—but the work and service rendered by participants on the convention operating committees and on the program merit a special word of praise—as do the efforts of Barbara S. Foster, headquarters convention coordinator.

Further details about Detroit convention highlights and attendance breakdowns will appear in the September issue.

Other Agency News

• AMERICAN ASSOCIATION OF INSTRUCTORS OF THE BLIND: A monthly newsletter entitled *Fountainhead* has been set. In addition, a new AAIB Public Relations Committee and a new AAIB Publications Committee have been organized. A salary survey of professional workers for the education of visually handicapped children, a survey of building programs, and a survey of the number of teachers, full and part time, educating blind children, are "in the hopper." Lois V. Cox is president of AAIB—other officers are J. M. Woolly, first vice-president; Lee A. Iverson, second vice-president; Joseph Kerr is secretary-treasurer; Donald W. Overbeay is immediate past president; Maurice Olsen is executive secretary.

• AMERICAN PSYCHOLOGICAL ASSOCIATION: Plans are in process for the national conference set for New York City this coming August 31 through September 6. Two brochures are now available—one is on the work of the school psychologist and the second is on the gifted child. They may be obtained by writing Keith J. Perkins, secretary, Division 16, APA, 1333 - 16th Street, N.W., Washington, D. C. President of Division 16 is Katherine D'Evelyn; president-elect is Albert J. Harris, and treasurer is Warren A. Ketcham.

• ASSOCIATION FOR THE AID OF CRIPPLED CHILDREN: Annual meeting of this group was April 26th. It will be a closed meeting this year for members of the Association's Board and Council only. Herbert G. Birch, M.D., of the Association staff and associate research professor of pediatrics, Albert Einstein Medical College, is editor of a "Symposium on Brain Damage" now in process of preparation. A book on "Autobiographies of Handicapped Persons" is nearing completion, and a volume for the parents of handicapped children will be ready for publication in the late fall. The Association's Annual Report for 1959-60 will be ready for mailing April 15th. New staff addition is Matilda W. Riley, research specialist at Rutgers University, and research professor of New York University. A study of where parents of handicapped children turn for advice and guidance and how they use the information they receive is being financed by the Association and should be completed by December 1961.

• NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS: In conjunction with its state affiliates, the Society is engaged in a volunteer vision screening program. During the 1959-60 school year, a total of 54,000 preschool children were screened in 22 states. This is an ongoing project, with the figures for the 1960-61 screening now being compiled.

• NATIONAL ASSOCIATION OF SOCIAL WORKERS—SCHOOL SOCIAL WORK SECTION: The Practice Committee is continuing its research project on school social work practice with a focus on supervision and consultation. Policy statements on standards of practice are nearing completion. Now available is a statement on the *Professional Qualifications* for *School Social Workers*. New publications include: *Administration of School Social Work*, and *Social Work in the Schools: Selected Papers*. To be released in 1961, *The Contribution of School Work to Social Work Education*. Chairman of the Section: Joseph P. Hourihan.

• NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS has completed a study of financing and operating rehabilitation centers and facilities with the issuance of three new publications: *Financing and Operating Rehabilitation Centers and Facilities; Basic Accounting Procedures for Rehabilitation Centers and Facilities;* and *Cost Accounting, Budgeting, and Statistical Procedures for Rehabilitation Centers and Facilities*. In July 1960, the Society initiated a study of procurement and production problems of sheltered workshops. With the President's Committee on Employment of the Physically Handicapped, the society is co-sponsoring a project conducted under the auspices of the American Standards Association to develop standards of building construction and equipment which will facilitate use of public buildings by the physically handicapped.

TEACHER EXCHANGE PROGRAM OPPORTUNITIES FOR 1962-63

This unusual opportunity, for teachers who would like the experience of teaching in a national or an American-sponsored school in another land, is offered to elementary, secondary, and junior college teachers in all subject fields, through the teacher exchange program administered by the Office of Education in cooperation with the Department of State as authorized by Public Law 584, 79th Congress, the Fulbright Act, and Public Law 402, 80th Congress, the Smith-Mundt Act.

During the 1962-63 school year, approximately 400 grants will be available in 40 countries. The exchange teaching assignments are of two types: those involving an interchange of teachers, and those involving a one-way assignment for an American teacher in a school abroad.

The basic qualifications for an exchange teacher include the following: United States citizenship, a bachelor's degree, three years of successful teaching experience, good physical health, moral character, emotional stability, maturity, and adaptability. Other considerations being equal, veterans and persons under 50 years of age are given preference.

Applications and complete information regarding teaching and summer seminar opportunities for the 1962-63 academic year can be obtained after August 1 from the Teacher Exchange Section, Office of Education, Department of Health, Education, and Welfare, Washington 25, D. C. Applications will be received until October 15, 1961.

1

2

CEC SPECIAL PUBLICATIONS

3

4

5

NEW CEC SPECIAL EDUCATION PUBLICATIONS.....

1. FAMILY CRISIS AND THE RETARDED CHILD

—by Bernard Farber, William C. Jenne, and Romolo Toigo

- A scientific investigation of factors involved in parents' decision to institutionalize their retarded child.
- Clarifies various elements to be considered in counseling parents of severely retarded children.
- First in a series of CEC Research Monographs; single copy rate or at reduced rates by subscription.

66 pages $2.00 1960

2. PROCEDURES FOR TEACHING TRAINABLE CHILDREN

—by Margaret Hudson

- CEC Research Monograph No. 2; single copy rate or by subscription.
- Exploratory study of teaching techniques, class size, homogeneity of classes, successful teaching, etc.
- Includes teacher competency check-list and practical, detailed outline of lesson areas.

71 pages $2.00 1960

3. TEACHING AIDS AND TOYS FOR HANDICAPPED CHILDREN

—by Barbara Dorward

- A practical do-it-yourself manual—easy-to-follow instructions.
- Describes construction and use of pegboards, puzzles, and other items for developing size and space perception, color discrimination, reading and number readiness.
- Used successfully with mentally retarded, cerebral palsied, brain injured, visually impaired and multiply handicapped children.

64 pages 54 illustrations $1.50 1960

4. CHILDREN WITH IMPAIRED HEARING

Administration of Special Education in Small School Systems
—by Alice Streng

- Answers problems of pupil identification, educational programming, administration and supervision.
- Offers detailed illustrative practices in four selected communities.
- Aids teachers in interpreting needed services to administrators.

72 pages $2.00 1960

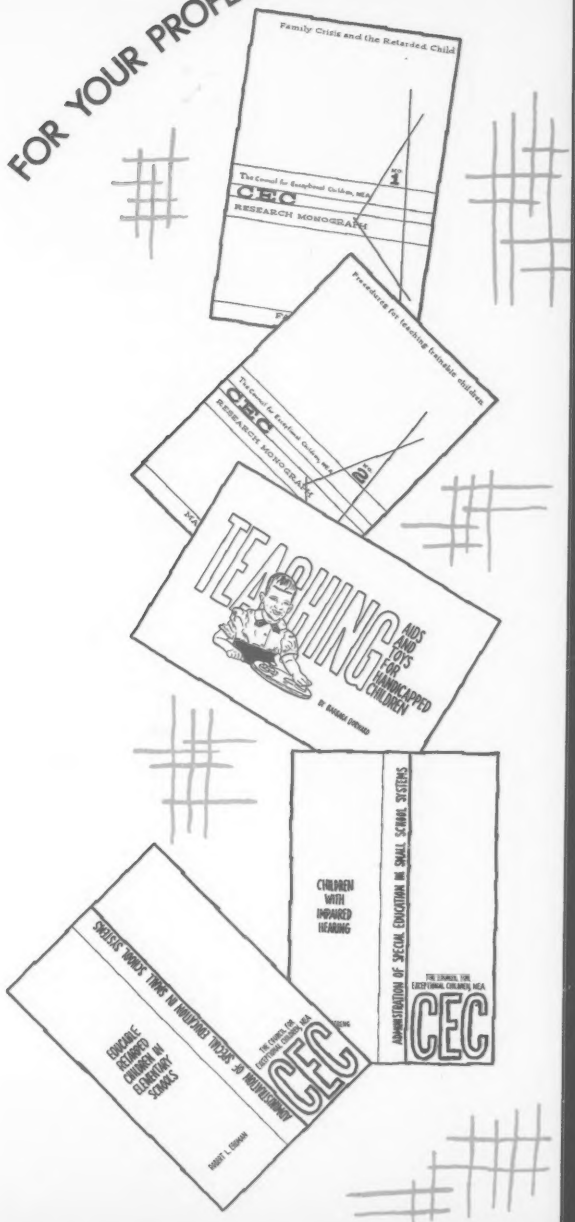
5. EDUCABLE RETARDED CHILDREN IN ELEMENTARY SCHOOLS

Administration of Special Education in Small School Systems
—by Robert Erdman

- Each chapter designed to emphasize a major aspect in the initiation of a special class program.
- Contains suggestions for selection of children, organization of classes, organizational problems, curriculum and program.
- Provides guidelines for school administrators, consultants and teachers.

64 pages $1.75 1961

FOR YOUR PROFESSIONAL LIBRARY


Family Crisis and the Retarded Child
CEC
RESEARCH MONOGRAPH
TEACHING AIDS AND TOYS FOR HANDICAPPED CHILDREN
CHILDREN WITH IMPAIRED HEARING
ADMINISTRATION OF SPECIAL EDUCATION IN SMALL SCHOOL SYSTEMS
EDUCABLE RETARDED CHILDREN IN ELEMENTARY SCHOOLS

SPECIAL SUBSCRIPTION OFFER

—RESEARCH MONOGRAPH SERIES

- First five issues for $9—first ten for $16.
- Research studies from various areas of exceptionality. First two in mental retardation.
- Three or four to be published annually. First two issues now available.
- A bargain at 10% to 20% discount over single copy rate.

ORDER TODAY

THE COUNCIL FOR EXCEPTIONAL CHILDREN, NEA, 1201 SIXTEENTH STREET, N.W., WASHINGTON 6, D. C.

Please place my order for the following:

——single copy(s) FAMILY CRISIS AND THE RETARDED CHILD $2*

——single copy(s) PROCEDURES FOR TEACHING TRAINABLE CHILDREN $2*

——subscription to Monograph Series A (Nos. 1-5) $9

——subscription to Monograph Series A-B (Nos. 1-10) $16

——copy(s) TEACHING AIDS AND TOYS FOR HANDICAPPED CHILDREN $1.50*

——copy(s) CHILDREN WITH IMPAIRED HEARING $2*

——copy(s) EDUCABLE RETARDED CHILDREN IN ELEMENTARY SCHOOLS $1.75*

ENCLOSED $.....

NAME .....

ADDRESS .....

.....

* Discounts on quantity orders of same title for shipment to one address: 2-9 copies, 10%; 10 or more copies, 20%.

RESEARCH SEMINAR ON MENTAL RETARDATION

The U. S. Office of Education, through its Cooperative Research Program, will conduct an invitational research seminar on mental retardation during the last two weeks in August. The invitational seminar will bring together 12 leaders in the field of mental retardation to exchange ideas and to generate new ideas which can be used by investigators in conducting research in this field. During the seminar the participants will identify research problems in mental retardation based on their recent research studies and develop tentative designs for research on each of these problems. The results of the seminar will be reported in U. S. Office of Education publications and in appropriate professional journals.

The seminar is the first of a series being planned by the Cooperative Research Branch. The ultimate purpose of these seminars will be to increase the quantity of high quality research leading to practical solutions of major problems in the field of education. Inquiries concerning the seminars may be addressed to

Dr. Robert H. Beezer
U. S. Office of Education
Department of Health, Education, and Welfare
Washington 25, D. C.

MATERIALS RECEIVED

Editor's Note: The following published materials have been received recently at Council headquarters. There has been no opportunity to evaluate and review them but they are presented here with prices and addresses (where possible) for your information.

Allen, Robert M., Corrie, Christopher C., and Jefferson, Thomas W. (Eds.) *Proceedings of the second annual workshop on the integration and interpretation of pre-vocational and vocational information concerning the neurologically handicapped client.* Coral Gables, Fla.: University of Miami Press, 1960. 43 p.

Darrow, Helen F., and Allen, R. Van. *Independent Activities For Creative Learning.* New York: Bureau of Publications Teachers College Columbia University, 1961. 110 p. ($1.25)

Gibbons, Helen, and Cunningham, Florence. *Finding and helping the partially seeing child.* Publication 253 of the National Society for the Prevention of Blindness. ($.05)

Katz, Alfred H. *Parents of the Handicapped.* Springfield, Ill.: Charles C Thomas, 1961. 155 p. ($6.)

Tisdall, William J. A follow-up study of trainable mentally handicapped children in Illinois. Reprinted from the *American Journal on Mental Deficiency,* Vol. 65, No. 1, July, 1960.

Zickefoose, Mayton. Feeding the child with a cleft palate. Reprinted by the U. S. Department of Health, Education, and Welfare, Social Security Administration, Children's Bureau, from *Journal of the American Dietetic Association,* Vol. 36, No. 2, February 1960.

Eakin, W. M., Pratt, R. J. A., & McFarland, I. L. *Type size research for the partially seeing child.* Pittsburgh: Stanwix House, Inc., 1961. 32 p.

Howe, J. W. & Staff. *A list of behavioral goals for evaluating the progress of the trainable child.* Burlington, New Jersey: William R. Allen School, 1960. Mimeo. (35¢).

Lewis, Gertrude M. *Educating the more able children in grades four, five and six.* Washington: United States Printing Office, 1961. 84 p. (35¢).

Schunhoff, H. F., Road signs in the education of the deaf. Berkeley, California: California School for the Deaf, 1960. 5 p. (Available from American Annals of the Deaf, Gallaudet College, Washington 2, D. C. 25¢).

ATTENTION

ALL CEC MEMBERS!

DO NOT BE

AMONG THE MISSING

COMPLETE AND MAIL YOUR

MEMBERSHIP QUESTIONNAIRE

(SEE ARTICLE IN THIS BULLETIN)

TEACHER of the partially deaf at the elementary level in the Port Huron, Michigan, city schools. A city of 35,000 with a school population of 14,000. Beginning Bachelor's Degree salary of $4700; Master's Degree, $5000; $200 per year increments. Outstanding community in which to live and teach. For information and details write to **Gerald S. De Grow, Director of Instruction, Board of Education, 509 Stanton Street, Port Huron, Michigan.**

DIVISION OFFICERS FOR 1961-62

Association of Educators of Gifted Children

President: T. Ernest Newland, Urbana, Illinois

President-Elect: Ruth A. Martinson, Sacramento, California

Secretary: Virgil S. Ward, Charlottesville, Virginia

Treasurer: Jack W. Birch, Pittsburgh, Pennsylvania

Association of Educators of Homebound and Hospitalized Children

President: Elizabeth Wetzel, Houston, Texas

President-Elect: Frances P. Connor, New York, New York

Secretary: Clarissa H. Hug, Chicago, Illinois

Treasurer: Valborg Birkeness, St. Paul, Minnesota

Council for the Education of the Partially Seeing

President: Frederika M. Bertram, Alameda, California

President-Elect: Mildred Moon, Gary, Indiana

Secretary: Doris McArthur, Windsor, Ontario

Treasurer: Edna Woodward, Cincinnati, Ohio

Council of Administrators of Special Education in Local School Systems

President: Frances A. Mullen, Chicago, Illinois

President-Elect: Thomas W. Mulrooney, Wilmington, Delaware

Secretary: Marjorie Crick, Palm Beach, Florida

Treasurer: Al Tudyman, Oakland, California

Membership Chairman: Martin J. Dean, Newark, Ohio

Division on Teacher Education

President: Allen Myers, Ypsilanti, Michigan

President-Elect: Horace Mann, Buffalo, New York

Secretary-Treasurer: Mary Krider, Provo, Utah

RELATED ORGANIZATION

National Association of State Directors of Special Education

President: W. R. Burris, Jackson, Mississippi

President-Elect: Dorothy Seigle, Champaign, Illinois

Secretary: Janet Smaltz, Bismarck, North Dakota

Treasurer: Elizabeth MacLearie, Columbus, Ohio

CEC SUMMER PROGRAM SET DURING NEA CONVENTION

If you plan to be present at the annual NEA convention this year in Atlantic City, New Jersey, hold Wednesday afternoon, June 28th, for the CEC program. It will be in the St. Denis Room, of the Dennis Hotel, and begins at 2 P.M. Theme of the meeting will be "The child who is a problem to the classroom teacher."

Presiding at the program will be George C. Boone, director of Education of the Handicapped, New Jersey State Department of Education. The welcome to guests and participants will be given by Harley Z Wooden of CEC's Washington office. Outgoing Council President Birch of the University of Pittsburgh will share the speakers platform with Boyd E. Nelson, director of the New Jersey Special Education Services, Trenton. Discussion reactors will be Ralph Brancale, Menlo Park, N.J.; Kathryn Dice, Harrisburg, Pa.; Elizabeth Kelly, Newark, N.J.; and Harrie M. Selznick, Baltimore, Md.

After the meeting, from 3:30-4:30, the New Jersey Council for Exceptional Children will be the host for a reception in honor of the occasion.

MICHIGAN STATE UNIVERSITY

Michigan State University offers a comprehensive study program in special education during its first half-term of summer school (June 19-July 26).

For further information write: Dean, College of Education, Michigan State University, East Lansing, Michigan.

VERBAL CONCEPTUALIZATION

(*Continued from page* 522)

3. Russell, D. H. *Children's Thinking*, New York: Ginn and Company, 1956.
4. Siegel, S. *Nonparametric Statistics*, New York: McGraw-Hill, 1956.
5. Templin, Mildred C. *The Development of Reasoning in Children with Normal and Defective Hearing*, Minn., University Minnesota Press, 1950.
6. Thorndike, E. L. *Thorndike Century Junior Dictionary*, New York: Scott, Foresman, 1935.
7. Vinacke, W. E. The Investigation of Concept Formation, *Psychology Bulletin*, 1951, 48, No. 1-31.

STATE LEVEL EDUCATIONAL SERVICES TO

Gifted Pupils

EUGENE H. SMITH

WITH the increased interest and attention to educational needs of gifted pupils during the past few years has come increased concern about quality in programs for such pupils. Observation indicates that in some school districts a "program for the gifted" has been begun largely because talk about such programs was in the air and it seemed the proper thing to do. It has been apparent, further, that many of these programs were administrative frosting rather than valid educational adaptation to the needs of the gifted.

Consequently, this concern for sound programs for the gifted has led educators in many states to seek leadership in the planning, operation, and evaluation of programs from the state level. From this source can come the coordinated and farsighted kind of planning that these programs must have if they are to serve as more than sops to an agitated public.

The State of Washington is among those in which state-level leadership is being provided — both through legislation and through various in-service activities. While these measures were underway, the superintendent of public instruction authorized a survey of services to gifted pupils provided by state educational agencies in the United States. The writer, who was then a member of the state superintendent's staff, prepared a questionnaire for distribution to chief state school officers in all 50 states. The results of this survey were prepared as a mimeographed report and are summarized in this article.

Definitions of Giftedness

Countless discussions about suitable educational provisions for the gifted have foundered because of lack of clarity in definition of the quality of giftedness. Books, pamphlets, and publications of school districts offer a vast and confusing array of definitions, few of which are truly operational (in that they do not have implicit in them criteria which can be interpreted similarly by all readers).

Definitions have been adopted for use at the state level in 12 states, according to this survey. They range in precision from the definitions of Kansas ("intellectually superior"), Oregon ("children enrolled in a public school who individually meet the criteria for such children as determined by the State Board of Education according to generally accepted standards"), and Delaware ("children who have the native capacity for high potential intellectual attainment and scholastic achievement") to the definitions of Florida (Stanford-Binet IQ of 140 or above) and North Carolina ("approximately one percent of the school population . . . [or] above 137 IQ on intelligence tests").

Since few states currently provide additional funds to school districts for operation of programs for the gifted, operational definitions for state-wide use may not seem essential. It has seemed, however, that some definitions added little to the understanding of educators or the public as to what sorts of pupils will be considered "gifted." Meanwhile, one finds considerable confusion in the minds of teachers, administrators, and parents as to the types and degrees of human abilities that make up giftedness. One implication of this study was the apparent need for more thought and attention to the matter of definition; clarity in this respect could be of great assistance to local school district personnel.

State Level Committees on Education of the Gifted

Twenty states reported the formation of a committee which operates at the state level with its major efforts devoted to education of gifted pupils. These committees are entirely advisory (to the governor or chief state school officer) in their function and are commonly composed of educators from several different school levels in the state.

Among the purposes of these committees were the following:

• EUGENE H. SMITH is a member of the Department of English, University of Washington, Seattle 5, Washington.

1. To study the educational needs of gifted pupils with respect to present school services;

2. To conduct research (including surveys of programs, evaluation of programs, and coordination and support of local school district research);

3. To develop a state plan or policy for education of the gifted;

4. To determine the need for legislation and additional state funds for educating gifted pupils;

5. To coordinate state educational agency services to the gifted through local and county school districts.

While in many states the activities of these committees and the services which they recommend are still in the incipient stages, it appeared from this survey that some states had worked impressively toward tangible and measurable state leadership. There was evidence that some of these committees had approached their responsibilities with great care and had expended large amounts of time and energy in meeting them. Furthermore, the representative structure and advisory nature of the committees appeared to be permitting them to work by supportive rather than by coercive means.

State Funds for Gifted Pupils

Funds from the state level for education of gifted pupils had been made available to very few states at the time of this survey, although several states reported that such funds were to be requested from the next legislature.

According to this survey, two states (Oregon and Rhode Island) had made legislative provision to reimburse school districts for additional costs involved in initiating a program for the gifted. In six other states funds were available for research and evaluation of programs; these states included California, Delaware, Illinois, Minnesota, New York, and Washington. Amounts of money varied from $3192 for a two-year period (Minnesota) to $250,000 per year for a three-year period (Oregon). In all instances the results obtained from the use of these funds were to be evaluated and used as a basis for continued or expanded appropriations or for abandoning the special appropriation approach.

The weight of opinion favoring some form of financial assistance to school districts for educating the gifted appeared to be strong in several states. Concurrently there was frequent concern that the educational dollar would be unduly fractionated for various types of exceptionality. Viewing the complex task of adapting an educational program for a gifted pupil in a given school district, however, one finds the mention of additional funds foremost among educators' perceptions of needs.

State Educational Agency Staff Members

Thirty-one states reported that there was a staff member whose duties included either full- or part-time attention to the educational needs of the gifted. Titles of these persons included the following: state supervisor of special classes; specialist in guidance; consultant for the gifted; supervisor of special education; and coordinator of education for the gifted.

Reflecting the diversity of titles was the range of duties which these individuals performed. Duties were divided into six relatively discrete categories as follows:

1. Consultation (on such matters as identification of the gifted, curriculum, and guidance services) with school district personnel;

2. Supervision and administration of services to the gifted offered from the state level (including advanced placement program, funds, and new program plans);

3. Coordination of research and information services;

4. Evaluation of school district programs;

5. Leadership of the state committee on the gifted;

6. Interpretation of gifted pupils' needs and programs for them to school personnel and the public.

In many instances the persons who filled these positions apparently spent considerable time in travelling throughout the state, establishing the personal contacts between state and local levels which often make the goal of leadership a reality. They were available to stimulate and to suggest

approaches to the problem of educating the gifted which appear to have most merit.

A regional approach to the improvement of staff competency with respect to educating the gifted has been used in the southern states. Nine staff members from state educational agencies have participated during the 1960-61 school year in the Southern Regional Project for Education of the Gifted (under the direction of Virgil Ward at the University of Virginia). After extensive study and observation of school district programs in various parts of the country, this group of persons will return to their home states prepared to lead with greater effectiveness in the improvement of programs for the gifted. Proposals for regional cooperation in this matter have been made in other parts of the country and deserve close attention. The North Central Association Superior and Talented Student Project is another example of this kind of interstate relationship.

Proposed Expansions in Services

Over half of the states have indicated that there are plans for expanding state level services to the gifted in the immediate future. Many of these plans are tied to a hoped-for legislative appropriation which will make possible reimbursement for excess costs to school districts and increased consultive service. Other states plan more intensive work in curriculum study so that school district personnel will have further specific guidance in ways to adapt their offerings for the gifted. One state has been experimenting with the use of educational television with emphasis on course offerings for pupils in the upper 10 percent in intellectual ability. In other states the problem imposed by the existence of many small high schools has seemed to have particular relevance for the few gifted pupils in each school; efforts to work regionally have been directed toward partial solution of this problem. The need for intensified research on many aspects of education of the gifted is increasingly being recognized in many states, and initial steps to design, support, and disseminate findings of studies imply an advance toward improved practice.

Summary

There is considerable activity in state educational agencies with regard to the needs of gifted pupils. This activity has been apparent in: 1) attention to the statement of a useful definition of giftedness; 2) formation of state level advisory committees to study needs of gifted pupils, conduct research, develop a state plan or policy, determine legislative needs, and coordinate services to the gifted; 3) appropriation of funds for research and support of educational programs for the gifted; 4) designation of state staff members to serve either full- or part-time in connection with programs for the gifted; and 5) formulation of several proposals for imminent expansions in state services to the gifted.

CALIFORNIA AND THE WEST NEED TEACHERS, CONSULTANTS, PSYCHOLOGISTS

for excellent public school special education programs—all fields. *Good salaries* — California average (1960-61): $6505.00

HALL TEACHERS AGENCY
Dept. E, 131 University Avenue
Palo Alto, California

a new idea in social play for some of your children

All the reports aren't in yet, because Playmobiles are so new. But teachers who have seen their children enjoy these big, outdoor wheel toys tell us of significant evidences of social growth, improved coordination, relaxation. Most probable areas of usefulness will be in hospital and convalescent schools; in pre-primary and primary classes for children with speech, hearing and limited orthopedic disability; and (the "Firefly" Playmobile especially) for mentally retarded children to age 12. For information to help you evaluate this new way of learning, write Dept E-461, Box 414, Detroit 31, Michigan.

mor-pla

BETTER SCHOOLS throughout the World use WARREN PATENTED GATED COMPRESSION AUDITORY TRAINING EQUIPMENT

W-1 WEARABLE AUDITORY TRAINING UNIT

The New Warren W-1 is a marvel of engineering, developed and perfected by audio specialists with years of experience in the auditory training field.

The W-1 offers completely new standards of HIGH POWER OUTPUT with EXTREMELY LOW DISTORTION. PENETRATION, DENSITY and CONFIGURATION OF SPEECH is unparalleled in a wearable auditory training unit. The student using a W-1 naturally developes a high degree of RETENTION.

The Warren W-1 actually contains THREE SEPARATE MODES OF OPERATION — Either of which can be selected at the flip of a switch. In one switch position the student is automatically "tuned in" to the FREE FIELD MAGNETIC LOOP CHANNEL of his particular classroom. A second switch position shifts the W-1 over to a second MAGNETIC LOOP CHANNEL such as might be used in an auditorium, assembly hall or other group meeting place. In the third position, the W-1 operates as an independent unit for personal instruction of the student

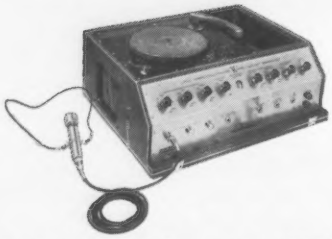
through its regular microphone input channel. Used in this manner, the W-1 provides a natural transition to the student's later use of a regular type hearing aid.

The Warren W-1 uses FIVE TRANSISTORS in a revolutionary new stabilized, low distortion circuit and is easily capable of driving a pair of miniature receivers to their full undistorted output.

A specially designed LINEAR VOLUME CONTROL adjusts the output level smoothly, with NO PEAKS—NO SURGES—and NO INTERNAL NOISE. The W-1 is powered by self-contained, long life MERCURY CELLS of a STANDARD TYPE, easily replaced when exhausted.

Provisions are made for use of either SPECIAL MINIATURE RECEIVERS when the W-1 is used outside the classroom—or WARREN DYNAMIC HEADPHONES when used in the auditory training classroom.

"FREE FIELD" MAGNETIC AUDITORY TRAINING SYSTEM



The engineers who first made AUDITORY TRAINING OF THE DEAF a perfected reality with the development of GATED COMPRESSION AMPLIFICATION, have now expanded that system for use with the new MODEL W-1 WEARABLE AUDITORY TRAINING UNIT.

Now — The student is completely freed of his desk, of interconnecting cables, control boxes, etc. He can literally "WALK AWAY" to any part of the classroom without missing a single syllable of the training program. THE WARREN MODEL W-1 with either miniature receivers or WARREN DYNAMIC HEADPHONES plugged-in, is the only equipment the student needs.

The rest of the system consists of the well known WARREN MODEL T-2 GATED COMPRESSION AMPLIFIER, to which is added a NEW MODEL CL-1 CHANALATOR. This combination feeds a MAGNETIC LOOP in the classroom thus enabling ANY NUMBER OF STUDENTS to receive the training program. Any number of classrooms can be set up with no interference from adjacent classroom channels.

The MODEL W-1 also has switch positions for a common channel such as an auditorium, gymnasium or other group meeting place.

The new WARREN "FREE FIELD" MAGNETIC AUDITORY TRAINING SYSTEM has revolutionized the field because it's many advantages MAKE THE TEACHING JOB EASIER — THE LEARNING FASTER. We will gladly acquaint you with full details on this "YEARS AHEAD" equipment.

Jay L. Warren, inc.

Medical Electronics Designed for Better Hearing

1247-49 W. BELMONT AVE. • CHICAGO 13, ILL.

CEC PUBLICATIONS

THE COUNCIL FOR EXCEPTIONAL CHILDREN, NEA
1201 SIXTEENTH ST., WASHINGTON 6, D. C.

REPRINTS from "EXCEPTIONAL CHILDREN"

DISCOUNTS FOR REPRINTS

For a total of 2-9 copies from this list, deduct ..... 5¢ each
For a total of 10-99 copies from this list, deduct ..... 8¢ each
For a total of 100 or more copies from this list, deduct ..... 10¢ each

			CEC ORDER FORM		
			REPRINTS NO. COPIES ORDERED	PRICE PER COPY	GROSS COST
R1	**BLIND YOUNGSTERS IN NURSERY SCHOOLS AND KINDERGARTENS.** Margery Cutsforth. Oct. 1957 Differential Effects of Total Blindness and Partial Sight on Several Personality Traits. Herbert Greenberg and Sidney Jordan. Nov. 1957. Both of these articles are contained in one 11-page reprint.	30¢	R 1		30¢	
R2	**THE CHANGING PICTURE IN THE EDUCATION OF CHILDREN WITH CRIPPLING CONDITIONS AND SPECIAL HEALTH PROBLEMS.** Joseph Fenton and Frances P. Connor. Feb. 1959. 9 p.	30¢	R 2		30¢	
R3	**CHILD THERAPY—A FRAME OF REFERENCE.** John Withall and A. Rittenhouse. Jan. 1955. 6 p.	20¢	R 3		20¢	
R5	**COLOR BLINDNESS.** George A. Peters. March 1957. 5 p.	20¢	R 5		20¢	
R6	**A COMPARISON OF THE POST-SCHOOL ADJUSTMENT OF EDUCABLE MENTALLY RETARDED ADULTS WITH THAT OF ADULTS OF NORMAL INTELLIGENCE.** LeRoy Peterson and Lloyd L. Smith. Apr. 1960. 5 p.	20¢	R 6		20¢	
R7	**CONSERVING ABILITY IN THE SCIENCES.** Paul Witty and Samuel W. Bloom. Oct. 1955. 8 p.	20¢	R 7		20¢	
R8	**COUNSELING PARENTS OF GIFTED CHILDREN.** Samuel R. Laycock. Dec. 1956. 4 p.	15¢	R 8		15¢	
R9	**DYNAMICS OF THE UNDERACHIEVEMENT OF GIFTED STUDENTS.** John Curtis Gowan. Nov. 1957. 5 p.	20¢	R 9		20¢	
R10	**THE EMOTIONALLY HANDICAPPED CHILD AND THE SCHOOL.** Eli M. Bower. Sept. and Dec. 1959 and Jan. 1960. 24 p.	45¢	R 10		45¢	
R11	**AN EVALUATION OF VISION SCREENING.** Franklin M. Foote, M.D., and Marian M. Crane, M.D. Jan. 1954. 10 p.	25¢	R 11		25¢	
R12	**THE FOUR IQ's.** Edgar A. Doll. Oct. 1957. 3 p.	18¢	R 12		18¢	
R13	**THE GIFTED AND THE SOCIAL STUDIES.** D. A. Worcester. Sept. 1958. 3 p.	18¢	R 13		18¢	
R14	**HELPING THE LEFT-HANDED CHILD.** A. Clare Hume. Apr. 1951. 4 p.	15¢	R 14		15¢	
R15	**HOW JOHNNY LEARNS TO READ.** Samuel A. Kirk and Winifred D. Kirk. Jan. 1956. 3 p.	15¢	R 15		15¢	
R16	**IF YOUR SCHOOL AND COMMUNITY WANT THE FACTS ON JUVENILE DELINQUENCY.** William C. Kvaraceus. Oct. 1958. 11 p.	30¢	R 16		30¢	
R17	**INDIVIDUAL CLASSROOM ADJUSTMENTS FOR GIFTED CHILDREN IN ELEMENTARY SCHOOLS.** James J. Gallagher, Margaret Greenman, Merle Karnes and Alvin King. Apr. 1960. 15 p.	35¢	R 17		35¢	
R18	**NATIONAL PROGRAM FOR DISCOVERING STUDENTS WITH EXCEPTIONAL ABILITY.** John N. Stalnaker, March 1957. 5 p.	20¢	R 18		20¢	
R19	**PARENTS AS TEACHERS OF THE PRESCHOOL DEAF CHILD.** Daphne Nicholson Bennett. Dec. 1955. 4 p.	15¢	R 19		15¢	
R20	**THE PHYSICALLY HANDICAPPED CHILD AND THE NURSERY SCHOOL.** Eric Denhoff, M.D. Feb. 1954. 7 p.	20¢	R 20		20¢	
R21	**THE PRESCHOOL BLIND CHILD AND HIS NEEDS.** Berthold Lowenfeld. Nov. 1953. 6 p.	20¢	R 21		20¢	
R22	**PROBLEMS OF PARENTS OF HANDICAPPED CHILDREN.** Harold A. Greenberg, M.D. Oct. 1950. 8 p.	20¢	R 22		20¢	

	NO COPIES ORDERED	PRICE PER COPY	GROSS COST
R 23	.....	20¢	.....
R 24	.....	15¢	.....
R 25	.....	35¢	.....
R 26	.....	15¢	.....
R 27	.....	20¢	.....
R 28	.....	20¢	.....
TOTALS	.....		$.....
Less discount rate × number ordered			.....
		NET COST	$.....

	NO. COPIES ORDERED	NET COST AFTER DISCOUNT
B 1	.....	$.....
B 2	.....	.....
B 3	.....	.....
B 4	.....	.....
	TOTAL	$.....

TO: THE COUNCIL FOR EXCEPTIONAL CHILDREN, A DEPARTMENT OF THE NEA, 1201 SIXTEENTH STREET, N.W. WASHINGTON 6, D. C.

Enclosed please find $..... (check-cash-money order-stamps) in payment for publications as indicated above.

Name _____

Address _____

_____

R23 THE ROLE OF A SPEECH CORRECTIONIST IN THE PUBLIC SCHOOL. Wilbur A. Yauch. Jan. 1952. 5 p. 20¢

R24 SOCIAL DRAMA FOR RETARDED ADOLESCENTS. Ethelwyne Arnholter. Jan. 1955. 3 p. 15¢

R25 THE SOCIAL PSYCHOLOGY OF EXCEPTIONAL CHILDREN (a series of three articles) by Merrill T. Hollinshead, Matthew J. Trippe and Maynard C. Reynolds with an introduction by T. Ernest Newland. Nov. and Dec. 1959 and Jan. 1960. 16 p. 35¢

R26 TEACHING DRIVER EDUCATION TO MENTALLY RETARDED ADOLESCENTS. Charles H. Kahn. Oct. 1955. 3 p. 15¢

R27 TEACHING READING TO THE PARTIALLY SEEING CHILD. Edith Cohoe. Sept. 1960. 7 p. 20¢

R28 WORKSHOPS AND OCCUPATIONAL EDUCATION PROGRAMS FOR THE MENTALLY RETARDED. Edgar A. Doll. Sheltered Workshops for Mentally Retarded. Edgar A. Doll. Sept. 1958. Occupational Education for the Adolescent Metally Deficient in a School Program. Oct. 1958. Both articles are contained in this one 6-page reprint. 20¢

PAPER COVERED BOOKS AND PAMPHLETS

B1 EVALUATION AND EDUCATION OF THE CEREBRAL PALSIED CHILD—The New Jersey Study, by Hopkins, Bice, and Colton, with introduction by Winthrop Morgan Phelps, M.D. Discusses physical, educational and psychological findings, educational training and therapy, and integration of services. Second printing, Oct. 1955. 113 p. $1.60; 2-9 copies 10%; 10 or more 20%

B2 FILMS ON THE HANDICAPPED—An Annotated Directory by Jerome H. Rothstein and Thomas O'Connor. Listings grouped by type of desirability, indicating nature of the subject matter, from whom to borrow or rent, etc. 1955. 56 p. $1.00. Directory with annual supplements for 1957, and 1958. $1.30; 2-9 copies 10%; 10 or more 20%

B3 HOW TO CONDUCT A SELF SURVEY OF SPECIAL EDUCATION NEEDS—Prepared at the University of Illinois by T. Ernest Newland and associates. A guide for data-gathering and analysis, of interest to those who wish to start or improve a special education program. 1958. 48 p. $1.00; 2-9 copies 10%; 10 or more 20%

B4 WHAT IS SPECIAL ABOUT SPECIAL EDUCATION?—A series of reprints from EXCEPTIONAL CHILDREN. Covers the following types of exceptional children: Blind—Berthold Lowenfeld; Mentally Handicapped—Samuel A. Kirk; Deaf—Harley Z Wooden; Hard of Hearing—Alice Streng; Gifted—Paul Witty; Crippled—Romaine P. Mackie; Partially Seeing—Frederika Bertram; Speech Defective—Harold Westlake. Dec. 1952, Jan.-May 1953, Oct.-Nov. 1953. 44 p. 80¢; 2-9 copies 10%; 10 or more 20%

MINIMUM PUBLICATION ORDER—$1 AFTER DISCOUNTS including reprints, books and pamphlets

VERBAL CONCEPTUALIZATION in deaf and hearing children

ROBERT B. HUGHES

PREVIOUS research has shown that while the deaf are impaired in abstract reasoning and abstract concept development, they perform nearly as well as the hearing on low-order concepts; concepts that can be concretely represented as for example, "Chair," "Vegetable," or "People." However, little experimental evidence is available on the verbal concept knowledge of deaf children.[1] Hence, the present study was done to obtain experimental evidence of this aspect of the verbal behavior of deaf children.

Purpose

The primary purpose of the study was to compare the performance of deaf and hearing children of comparable mental ages on a selected list of words and word concepts arranged in a percept testing-concept sorting task. The major hypothesis investigated was as follows: *There are no statistically significant differences between the performances of hearing and hearing-impaired children of the same mental ability in percept and concept behavior as reflected in the accuracy with which they relate known percepts to known concepts. Related problems investigated were*:

1. The performance of hearing-impaired subjects on the percept testing-concept sorting task with respect to the type of training or instruction the child had received

2. Analysis of the length of time the child had been in the residential school compared to performance on the task

3. The relationship between sex and performance on the verbal task

4. The relative difficulty of the words employed in the task in terms of performance by the deaf and hearing subjects, and

5. A comparison of the relation of mental age and chronological age to verbal concept behavior as measured by the designed instrument.

Definitions

The following definitions hold:

Concept—" . . . any word or idea that stands for any one of a group of things. It is a symbolic response which is made to the members of a class of stimulus patterns but not to other stimuli."(2)

Percept—"What is known of an object, a quality, or a relationship as a result of a sensory experience. Percepts grow out of sensations resulting from environmental stimuli; they may be recalled at some later time in the form of images and memories." (3)

Verbal Conceptualization—is operationally defined as the placement of percept words under the available concept words. Correct sorting or placement of percept words under appropriate concept words is taken to be indicative of the ability to use verbal concepts correctly.

Percept Testing-Concept Sorting Task—The method or technique for determining whether the child knows the percept or concept employed and secondly, the method of having the child place under known concepts his known percepts.

Hearing-impaired Children—Children from two units of the deaf sample were considered as functionally deaf. That is, these children had no usable hearing for academic performance or school learning. Furthermore, all of these children suffered their hearing losses before the development of language and may, therefore, be regarded as congenitally deaf. Children in the remainder of the

[1] A complete discussion of this point will be found in the review chapter of the dissertation.

• ROBERT B. HUGHES is assistant professor in the area of exceptional children, School of Education, University of North Carolina, Chapel Hill, North Carolina. This article is based upon a doctoral dissertation completed in 1959 under the direction of T. Ernest Newland, University of Illinois, Urbana.

Table 1. Word Frequencies by Concept Categories

Vegetable 2 N = 18	Moisture 4 N = 15	People 1 N = 34	Clothes 1 N = 23	Measurement 5 N = 21
Peanut 7	Rain 1	Indian 1	Coat 1	Inch 1
Corn 1	Snow 1	Fireman 7	Sweater 6	Dozen 2
Bean 2	Sleet 7	Baker 4	Apron 3	Diameter 8
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
Shape 1 N = 18	**Vehicle 7 N = 18**	**Metal 2 N = 29**	**Recreation 7 N = 24**	**Something else* N = 41**
Star 1	Car 1	Tin 3	Dance 1	Flag 2
Triangle 6	Wagon 2	Nail 2	Sled 5	Lion 1
Circle 1	Truck 5	Copper 2	Golf 8	Egg 1
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•

Added words so that sorting would not be by a process of elimination

deaf sample showed various degrees of residual hearing and some had lost their hearing after the development of language; language and speech as formally and informally acquired by the hearing child. All the children in the hearing-impaired sample were residents of a state residential school for the deaf.

Hearing Children—The hearing subjects were all physically normal children living in a state supported institution for dependent children. Furthermore, no hearing losses were indicated for these children at the time they were used in the study and no hearing losses were noted in their records at any previous time.

Product versus Process—The concern of this study is on the product aspect of concept formation. For purposes of this study concepts are regarded as products. The focus is on the *what* and not on the *how*.

To some readers the distinction between percept and concept may seem artificial, especially if they perceive of percepts as concepts of a lower level of abstraction. O. H. Mowrer, (1) for example, believes that this distinction is meaningless and states in a personal communication that the word "percept" as used in the present study is what is usually called "meaning." He says the percept, or meaning, comes through learning, from a direct "raw" perception, and hence, a percept *is* an image or memory, that is, a *meaning*. Thus, for Dr. Mowrer, it would be better to talk about more or less abstract (generalized) meanings instead of talking about percepts and concepts. Dr. Mowrer's criticisms are perhaps valid with respect to concept formation—the learning aspect or "process" of concept development. But the present study was concerned only with the "product" of concept development and whether differences existed between deaf and hearing children with respect to these products on levels of conceptual behavior which for this study are operationally defined as percept and concept behavior.

Procedure

The method used was to compare the performance of deaf and hearing children of comparable mental ages on a selected list of words of known difficulty level (6) in a task which involved the sorting of known percepts into known concept categories. The concept categories and a sample of the percepts categorized under each are given in Table 1. The numbers after the words indicate the frequencies of use of the words or their difficulty levels. For example, the "1" after a word indicates that it is one of the thousand most frequently used words; a "2" means that the word is one of the next most frequently used thousand; and so on to the most difficult or least frequently used word.

Each child was tested on each word by means of its pictured equivalent to be sure the child knew the word before he was asked to sort it under a concept word, which also had been tested for knowability. Thus, only known percept words were

sorted under known concept words. The use of known words to be sorted under known concepts was deemed necessary so that the deaf would not be penalized for their lack of word knowledge. The percept testing-concept sorting task yielded seven measures related to percept and concept word knowledge. These were (1) number of concepts known, (2) number of percepts known, (3) number correctly sorted, (4) number incorrectly sorted, (5) number of relatable (sortable) words known, (6) number correctly sorted divided by the number of relatable words known, (the efficiency ratio), and (7) number incorrectly sorted divided by the total number of percepts known (the inefficiency ratio).

These seven dependent variables, along with the control variables of MA, CA, sex, and number of years spent in the residential school, were used for all the comparisons between the particular groups under consideration. Decisions to accept or reject the major and minor hypotheses were based on the results of these comparisons in terms of a .05 or .01 level of significance. The statistic used for testing the significance between and within groups for all the variables was the Mann-Whitney U test (4). The reason for selecting this nonparametric test stems from the fact that the assumptions for the t test could not be met in any of the variables. This was equally true for MA and CA because of the restricted ranges used as well as for the fact that the dependent variables do not meet the requirements of an interval scale.

Subjects

The subjects used in the study were 33 hearing and 56 deaf children, all living in residential schools, and between the ages of 10 years, five months inclusive and 14 years, one month inclusive. Their individual Stanford Binet or WISC mental ages ranged from nine years, six months to 15 years, six months inclusive. All the children who could not read or who manifested psychological disturbances and/or physical handicaps were eliminated from the study, the hearing loss being presumably the only important variable distinguishing the deaf and hearing samples. The deaf group was made up of children from three different educational programs: one sample, from a manually educated group; another, from an orally educated unit where speechreading was stressed; and a final sample, from an acoustic unit where speechreading and sound amplification were combined in the educational program. The children from the manually and orally trained groups were all profoundly deaf while the majority of the children from the acoustic sample had sufficient hearing to benefit from the use of hearing aids. Furthermore, some of the children in the acoustic sample had speech, since they suffered their hearing loss after the language habit had been formed. It should be noted that the term "profoundly deaf," as used in the present study, refers to the fact that these children had no usable hearing, and thus, hearing contributed nothing to their educational achievement. Furthermore, all the children in the manual and oral units suffered their hearing losses before the development of language and are, therefore, defined as congenitally deaf.

Results and Conclusions

The major problem investigated, stated in the form of a null or 'no-difference' hypothesis, was: There are no statistically significant differences between hearing and hearing-impaired children of the same mental ability in percept and concept behavior as reflected in the accuracy with which they relate known percepts to known concepts. However, it was suspected that, since the deaf are assumed to operate better on a percept level as compared to a concept level, better performance would be expected for percepts than for concepts. Table 2 shows the results of the comparison between deaf and hearing on the control and dependent variables. It should be pointed out that in reading the table, higher values for two of the variables, *i.e.*, "number sorted wrong" and the "inefficiency ratio," indicate poorer performance. For the remaining five dependent variables high values indicate good performance.

The results from the various comparisons between the hearing and the total deaf sample indicated that the hypothesis of no difference could be rejected at the .05 level of significance or better. Not only did the hearing know more percepts and concepts but they were able to correctly sort a higher proportion of known percepts to known concepts, as reflected by the efficiency ratio. Relative to the hearing, the deaf performed better on two of the seven dependent variables. They had fewer wrong sorts and hence, a smaller proportion of wrong sorts compared to the total number of percepts

Table 2. Comparison of Hearing With Deaf

Variables	Hearing N = 33 Median	Deaf N = 56 Median	z	p*
Mental Age	12-9	12-6	.41	.3409
Chronological Age	12-7	12-8	.44	.3300
Number of Concepts Known	9**	4	6.94	.0000
Number of Percepts Known	230**	163	7.35	.0000
Number Sorted Correctly	139**	46	7.33	.0000
Number Sorted Wrong	32**	19	2.74	.0031
Number of Relatable Words Known	188**	62	7.13	.0000
Number Sorted Correctly ÷ by Number of Relatable Words Known (Efficiency Ratio)	.790*	.746	2.12	.0170
Number Sorted Wrong ÷ by Number of Percepts Known (Inefficiency Ratio)	.145	.122	.56	.2877

*Significant at the .05 level
**Significant at the .01 level
*for a two-tailed test p (probability) must be doubled

known, *i.e.*, the inefficiency ratio. The reason for better performance by the deaf on these two variables is thought to be related to the fact that the hearing subjects knew most of the total number of percepts available which included the more difficult words. This caused them to make more wrong sorts and inflated the number sorted wrong which in turn, increased the inefficiency ratio. Hence, better performance by the deaf on these two variables is thought to be related to the ceiling effect of the task and is not a valid picture of the comparison between the two groups.

The prediction that the deaf would perform better on a percept level as compared to a concept level was substantiated. Whereas the deaf knew 163 of the 241 percept words, they were able to sort correctly only 46 of the 163. The deaf were 68% efficient for their percepts known but only 28% efficient when it came to placing them with respect to the appropriate concept.

With respect to related problems or minor hypotheses investigated, it was anticipated that differences in percept and concept behavior would be shown by the different deaf groups. Since the task was a verbal one, it was thought that those subjects with some hearing might perform significantly better than the nonhearing. Extending this reasoning, it was believed that the acoustically trained would do better than the orally trained who, in turn, would do better than the manually trained, on the verbal task used in the study. The general trend of these various comparisons, although not at a statistically significant level, was in the expected or predicted direction. That is, performance was best for the acoustically trained, next best for the orally trained and poorest for the manually trained. Also, greater differences in performance were found between the manually trained children and the other two groups than between the acoustic and orally trained children. However, it should be noted that in spite of the controls employed, many uncontrolled variables could be operating that would tend to lower the performance of the manually trained children. Mild adjustment problems, wishes of parents who want their child in the manual unit against the desires of the child, and poor performance in other units before placement in the manual unit presumably could contribute varying amounts of influence toward an inferior test performance. In short, it is not just the fact of being trained by the manual method that might be suspected as contributing to the relatively poor performances on the percept testing-concept sorting task.

The second related problem investigated was an analysis of the length of time the child had been in the residential school compared to performance on the verbal task. Contrary to the belief that children who have been in residential schools tend to score lower on certain kinds of tests than do children who have not been in residential schools, the present study found no relationship for either the deaf or the hearing between length of institutionalization and performance on the number of percepts and concepts known. These findings are consistent with the findings reported by Templin.(5)

The third problem examined was the relationship

HORACE H. RACKHAM
SCHOOL OF SPECIAL EDUCATION

eastern michigan university

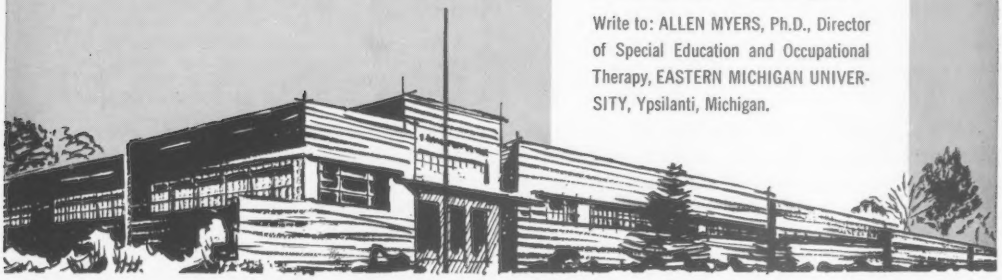
YPSILANTI, MICHIGAN

A LEADER IN SPECIAL EDUCATION
FOR MORE THAN 40 YEARS

A modern campus laboratory school and the contemporary philosophy of a distinguished faculty affords you the opportunity to gain practical as well as theoretical experience in all areas of special education.

Undergraduate and graduate courses leading to certification in special education and occupational therapy and to the Bachelor's and Master's degrees.

Write to: ALLEN MYERS, Ph.D., Director of Special Education and Occupational Therapy, EASTERN MICHIGAN UNIVERSITY, Ypsilanti, Michigan.



SUMMER SCHOOL—JUNE 19th to JULY 28th

GRADUATE & UNDERGRADUATE COURSE OFFERINGS IN THE AREA OF:
Mentally Handicapped
Orthopedically Handicapped
Socially & Emotionally Maladjusted
Deaf and Hard of Hearing
General Special Education

DEMONSTRATION CLASSES:
Mentally Handicapped
Orthopedically Handicapped
Acoustically Handicapped
Speech Therapy
Occupational Therapy
Physical Therapy

STUDENT TEACHING
Mentally Handicapped
Acoustically Handicapped
Orthopedically Handicapped
Emotionally & Socially Maladjusted

between sex and performance on the verbal task. Since girls generally are thought to perform better than boys on verbal material, it was expected that the girls in the hearing and deaf samples would perform significantly better than the boys on the verbal task employed. This prediction was not supported by the findings of the present study.

Another consideration was with reference to the relative difficulty for the deaf and hearing of the words employed in the task. As anticipated the words were more difficult for the deaf, *i.e.*, they knew only 163 of the 241 percepts while the hearing knew 230 of the 241 percepts. With reference to ambiguous words, or words incorrectly sorted, it was found that both groups sorted incorrectly. Furthermore, the prediction that the deaf would show peculiar ways of interpreting and using words was not entirely borne out, although they tended to sort under the relatively easy concept "People" words that described things that people do rather than the correct sort of kinds of people. However, both the hearing and deaf included words under the concept "Vegetable" which seemed to indicate that they were operating in terms of a "Food" concept rather than "Vegetable." In general, the hearing group performed better than the deaf on low-order concepts, *i.e.*, "People," "Clothes," *etc.*, but behaved somewhat like the deaf in this study on several of of the higher-order concepts, *i.e.*, "Measurement," "Recreation," *etc.*

The final problem investigated was the relation of mental age and chronological age to verbal concept behavior as measured by the designed instrument. Although mental age and chronological age did not differ significantly between the deaf and hearing samples, the question was raised as to the

possible relation of these variables to verbal concept behavior. Since the survey of the literature showed that CA was believed to be as important as MA in terms of concept formation, it was predicted that this would hold true for the present study. The results, however, showed a higher relationship for MA and number of concepts and percepts known for both deaf and hearing than for CA and the same variables. This is contrary to the views of Vinacke (7) and Russell,(3) but for the present study it is concluded that MA was more closely related to verbal concept behavior than was CA.

Summary

In brief, then, study of the verbal behavior of intellectually average deaf and hearing residential school children ranging in chronological age between 10 and 14 years, showed that the hearing children performed significantly better than the deaf children with respect to words of higher and lower orders of generality or levels of abstraction. The deaf as a group performed better at the percept level than the concept level. The orally and acoustically trained deaf did not differ significantly although both performed better than the manually trained subjects. Sex differences in relation to the verbal task studied were minimal and did not occur at all in the hearing sample.

Until more is known about the process of concept attainment, which is the first step necessary for modifying the existing educational program for the deaf, it is likely that the deaf will continue to be conceptually impoverished with respect to abstract concepts. However, in terms of the results from the present study it appears that the teaching of concepts should include emphasis on what (a concept) is *not* as well as on what it *is*, *i.e.*, concept refinement. This is true for both hearing and deaf but is more important for the latter since their word and concept knowledge is gained primarily through formal education. Finally, it might be highly desirable for the deaf to be introduced to more low-order abstract concepts relatively early in their educational lives.

References

1. Mowrer, O. H. Personal communication. March 30, 1959.
2. Reed, H. B. Learning and Retention of Concepts, *J. Exp. Psychol.*, 1946, 36, 71-87.

(*Continued on page* 510)

Use the TACTILE-KINESTHETIC Approach

New teaching aids utilize the sense of touch and provide rich and varied experiences. Write your nearest supplier for free brochure.

J. K. GILL CO., S.W. Fifth Ave. at Stark, Portland 4, Oregon
KIGER & CO., INC., 1830 W. 16th St., Indianapolis 7, Indiana
ASSOCIATED SCH. DISTRIB. 222 W. Monroe, Chicago 6, Illinois
J. R. HOLCOMB & CO., 1710 East 22nd St., Cleveland 14, Ohio
PRACTICAL DRAWING CO., P. O. Box 5388, Dallas 22, Texas
CALIFORNIA SCHOOL SUPPLY, P. O. Box 407, Fresno 8, California
MAINCO TRADING CO., 57 Pine St., Canton, Massachusetts
NOVO EDUCATIONAL TOY & EQUIP. CORP., 585 Avenue of the Americas, New York 11, New York

SPEECH THERAPY

Riddle-A-Rhyme is a new series of 8 color filmstrips designed to overcome language and articulation difficulty. Set of 8 color filmstrips and teachers manual **$30.00**

Correlated for use with these filmstrips, or independently in School or at home: A completely different kind of LOTTO GAME—Riddle-A-Rhyme Lotto—interesting, amusing and informative.
A carton of 12 games **$10.80**

Order on approval from:

EYE GATE HOUSE, INC.
146-01 Archer Avenue
Jamaica 35, New York

CONTINENTAL
Preprinted
CARBON MASTERS

15 TITLES *prepared specifically for exceptional children - slow learners - for use in regular classes or in special classes.*

NUMBER CONCEPTS—Level 1	MEASUREMENT—Level 1
NUMBER CONCEPTS—Level 2	MEASUREMENT—Level 2
NUMBER CONCEPTS—Level 3	MEASUREMENT—Level 3
U. S. MONEY—Level 1	TIME—Level 1
U. S. MONEY—Level 2	TIME—Level 2
U. S. MONEY—Level 3	TIME—Level 3

USEFUL LANGUAGE—Level 1
USEFUL LANGUAGE—Level 2
USEFUL LANGUAGE—Level 3

• *Write for FREE Demonstration Catalog showing the exact content of each book.*

THE CONTINENTAL PRESS, INC.
ELIZABETHTOWN, PENNSYLVANIA

There IS an answer . . . for ALL ages!

THE BROWN SCHOOLS
for mentally retarded and emotionally disturbed persons from infancy to maturity*

* Older retarded persons: 21 years and over
Retarded children: infancy to 21 years
Emotionally disturbed children and adolescents: 8 to 18 years

FOR a detailed catalogue describing THE BROWN SCHOOLS in both text and photographs, write to

MRS. NOVA LEE DEARING, Registrar
Dept. H-O
P. O. Box 4008
Austin 51, Texas
Paul L. White, M. D.,
Medical and Psychiatric Director

The Brown Schools

Austin and San Marcos, Texas
Founded in 1940
Six separate resident centers

STEPS TO COMPOSITION
by
Sister James Lorene, C. S. J.

A UNIQUE, INTERESTING, and STIMULATING METHOD OF TEACHING COMPOSITION

34 SETS OF SEQUENCE PICTURE STORIES

200 INDIVIDUAL PICTURES 5"x6½"

An accompanying manual presents full instructions.

$5.50 plus postage

The ABC of Auditory Training
by
Sister James Lorene, C.S.J.
Graded lessons and techniques for

1. YOUNG PRE-SCHOOL CHILDREN
2. ADVANCED PRE-SCHOOL CHILDREN
3. FIRST GRADE CHILDREN

$3.50 plus postage

SEE IT! SAY IT! USE IT! (Book 2)
by
The Primary Department
St. Joseph's Institute for the Deaf
SPEECH AND LANGUAGE BOOK
for
ADVANCED PRE-SCHOOL CHILDREN

Approximately 400 pictures
of
Furniture • Food • Clothing • Toys • Utensils • Equipment • Verbs • Pronouns • Prepositions • Idiomatic Expressions

NO PRE-SCHOOL CHILD SHOULD BE WITHOUT A COPY!

$2. plus postage

Speech and Auditory Training (For the Intermediate Grades)
by
Sister Mary Laurentine Lorenz, C.S.J.

A manual which will provide the teacher of the deaf child in the intermediate grades with purposeful material to be used in speech and auditory training. 81 pages.

$3.

Order from:

St. Joseph Institute for the Deaf
1483 82nd Blvd.
University City 32, Mo.

The Visual Imagery of Retarded Children

and the relationship to memory for word forms

LEON D. RADAKER

READING occupies a central position in the school curriculum since it is the primary vehicle for learning. Failure in reading leads to academic frustration and dropout. Penty (4) found that 50 percent of all school dropouts were categorized as "poor" readers while 14.5 percent were considered to be "good" readers. Approximately 10 percent of the normal school population are characterized as reading casualties, due primarily to deficiencies in word recognition.

The role of visual imagery has been neglected as a result of the influence of Watson, who almost a half century ago sounded the death knell of imagery studies because introspective reports were needed. The limiting factor in all studies of this kind is the measurement of such reports since no direct measures are available.

Semantic difficulties have been encountered in the usage of the term visual imagery. Numerous synonyms have been discovered in the literature; some of these have caused confusion. Visual memory, visualization, inner perception, memory images, and re-perception were some of the descriptive expressions isolated.

When the term visual imagery is used in this paper it has reference to images of a visual nature that can be mentally aroused and experienced by the individual. These images were popularized by Galton under the concept of the "mind's eye." There is general agreement that this term includes the ability to re-create words, events, and objects with photographic clarity.

• LEON D. RADAKER is the psychologist for the Butler Area Schools, Butler, Pennsylvania.

The author wishes to cite Margaret O'Brien DeMucci, special education teacher, Butler Schools, for the computations of the correlations contained in this study.

A diligent search of the literature reveals that Rosseler (6), Pear (3), and Susukita (7) suggested that practice will increase the ability to create images. Allport (1), Harris (2), and the Wheelers (8) contended that children who were able to formulate clear, vivid images should be able to recognize words effectively. The author (5) has shown in previous studies on normal fourth grade public school children that visual imagery could be improved through training and that such training would lead to improved performance in memory for word forms. It is hypothesized that these findings are applicable to retarded children.

Design and Procedure

SUBJECTS

The subjects were 45 pupils enrolled in the upper three classes of the elementary special education program in the Butler Area Elementary School System in Butler, Pennsylvania. The ages ranged from 10 to 15 years.

DESIGN

To equalize the number of subjects appearing in each experimental group, slips of paper were prepared bearing the notations Imagery Practice 2, Imagery Practice 6, and Control. These groups are subsequently identified as IP2, IP6, and C. Fifteen subjects were randomly selected from each of three classrooms. Five subjects were assigned from each room to each of the three experimental groups, making a total of 15 in each.

VARIABLES

The dependent variables in this study were four tests specifically designed to measure imagery factors. Initial and final measures were obtained for

all subjects on each of these tests: (1) Memory for Designs, (2) Memory for Objects, (3) Visual Imagery Index, and (4) Memory for Word Forms. All tests were individually administered.

The Memory for Designs Test was constructed from four drawings in the Revised Stanford Binet test, forms L and M, and the 15 drawings in the Graham-Kendall Memory for Designs Test. The purpose of this test was to obtain an appraisal of memory for abstract designs. To obtain uniform scoring some adjustments were made from the criteria used in the original tests. A score of two was given to a reasonable facsimile of the stimulus drawing with no configurational alterations. If one item of the drawing was changed which altered the gestalt, a score of one was given. Zero was assigned to any drawing if more than one item was changed. Each of the 15 designs were drawn in India ink on white, unlined, 3 x 5 inch cards. The two drawings from each form of the Binet were placed on one card. Cards with single designs were exposed for five seconds while cards which possessed two designs were exhibited for a period of 10 seconds. When the stimulus cards were removed from view, the subjects reproduced the designs from memory on a suitable form. A maximum score of 38 could be achieved on this test.

A Memory for Objects Test was constructed to measure imagery for concrete objects. Sixteen common objects were attached to the surface of a white board to form four rows and four columns. The objects were small, commonly known to each sex, and have approximately equivalent sex interest. The objects were a paper clip, girl's hair clip, button, and toy fork in the first row; match, hair ribbon, nail, and toy racing car in the second row; bobby pin, light bulb, rubber band, and scissors in the third row; and toy train, band aid, toy airplane, and safety pin in the fourth row. The board was exposed for 90 seconds. When the stimulus materials were removed, the responses of the subject were recorded by the examiner on an appropriate form. If an object was correctly recalled and located, a score of two was given. Correct recall with incorrect location received a score of one. A maximum score of 32 was possible on this test.

The Visual Imagery Index was derived from a summarization of weighted scores in six dimensions for three stimulus words—*come, front,* and *schism.* The dimensions of the image measured were brightness, conformity, boldness, duration, stability, and arousal interval. Appropriate models were constructed in the first three dimensions listed to permit objective evaluations. Duration and arousal intervals were determined by a stopwatch. Stability was a frequency measure of fluctuations of the image in the duration periods. A maximum score of five was possible in each dimension for each stimulus word. It was possible to achieve a score of 90 on this measure.

Come and front were selected because they are among the common sight words found on the Dolch word list, being known by most children in school. The final stimulus word, schism, is an unfamiliar word. The image for this word must be aroused primarily from hearing the word as it is pronounced and spelled by the examiner. Few children have previous learning of the word to condition or influence the arousal of the image.

Brightness referred to the "glossiness" of the stimulus word. Weighted scores were derived to measure this dimension. The stimulus words were fashioned from "paint chips" to produce objective measures. The following scale was used:

Score	Model	Score	Model
5	black gloss	2	dark gray flat
4	black semi-gloss	1	light gray flat
3	black flat	0	no image

Conformity referred to the degree of conformity of the image to the contour of the stimulus word. Models were created depicting progressive mutilation of the word. The following scoring was used:

Score	Model
5	good letter contour, white background
4	slightly irregular contour, white background
3	good letter contour, gray background
2	slightly irregular contour, gray background
1	pronounced irregular contour, gray background
0	no image

Boldness of face referred to the relative widths of the letters in the image. Models of the words with varying letter widths were assembled to produce this scale:

Score	Model	Score	Model
5	½ inch	2	$\frac{1}{16}$ inch
4	$\frac{3}{16}$ inch	1	hairline
3	⅛ inch	0	no image

Duration referred to the length of time the image

was retained. Three trials were given on each stimulus word and the combined time was recorded. Weightings were assigned according to this scale:

Score	Time (seconds)	Score	Time (seconds)
5	60-over	2	15-29
4	45-59	1	1-14
3	30-44	0	no image

Arousal interval was the latency period required to arouse an image of the stimulus word on command until the subject gave the appropriate signal indicating the possession of an image corresponding to the stimulus. The weighted scores were computed from the combined time of the three trials.

Score	Time (seconds)	Score	Time (seconds)
5	1-6	2	19-24
4	7-12	1	25-over
3	12-18	0	no image

Stability had reference to the frequency of image fluctuations in the duration period as signalled by the subject. The most common changes reported were an increment or decrement in size, color, or intensity. The weighted scores were determined according to this scale of combined fluctuations for the three trials.

Score	Frequency of Fluctuations	Score	Frequency of Fluctuations
5	0	2	5-7
4	1-2	1	8-over
3	3-4	0	no image

A Memory for Word Forms Test was compiled from *Webster's Unabridged Dictionary* and met three criteria. Forty words were selected that were unusual in pattern, low in frequency, and were not taught in the elementary grades. Each word was typewritten in pica type in the center of a white unlined 3 x 5 inch card. Each card was exposed for five seconds. When the card was removed, the subject reproduced the word from memory. The score was the total number of words correctly reproduced. The words comprising the test are shown in Table 1.

The independent variables were two levels of imagery practice. The lower level received two sessions of practice while the upper level received six sessions. The control received six sessions. Each session was limited in duration to 45 minutes.

Table 1. Memory for Word Forms Test

dhu	negus	elyng	phlegm
onyx	beryl	scyphi	muzjik
tyro	mazda	ptyxis	rhypia
dyne	calyx	pyknic	cytryne
oyez	satyr	zyzzle	zygnema
adze	zyruk	cloaca	psykter
styx	psoas	bijoux	dhundia
phyz	rzhev	moiety	ghilzai
rhyl	okapi	psyche	amygdala
naiad	coypu	miasma	phthalyl

Two practice lists of words were prepared which were similar to the words used in the Memory for Word Forms Test. The lists were identified as A and B. List A was presented to the lower level while the upper level received equal amounts of practice on A and B.

Procedure

All stimulus materials that needed to be handled received a coating of clear plastic to prevent soiling. The surface was washed periodically to remove marks and smudges. In this way the stimulus materials were presented in a standardized manner.

The complete experimental treatment was conducted within a period of two weeks to minimize growth and maturation factors. The 15 subjects comprising each level of training were subdivided into three groups of five subjects for IP2 and a similar number for IP6. IP2 received a session of training on Thursday of each week for the two-week period. IP6 received training on Monday, Wednesday, and Friday of each week making a total of six sessions in the training period.

The imagery practice groups were given training in the creation of images of words found on the practice lists. As each word was visually presented the subject closed his eyes and tried to arouse an image of the word in large, shiny black, small case letters on a white background. It was suggested to the subject that the word be visualized as though it had been projected on a large outdoor theater screen. Once the image was created the subject was asked to stabilize the image as long as possible with a maximum objective of one minute duration for each word.

To promote the training process specific recommendations were suggested to combat difficulties that interfered with the execution of the tasks.

Retention of color was improved by having the subjects imagine that they had fantasy black glossy paint and a fantasy paint brush. Letters or words which fluctuated in color were painted by the fantasy brush to restore the desired color to the image.

Letter conformity was improved by the suggestion that the subject visualize a pair of scissors to be used to trim the irregular edges of the letters comprising the word in the image to restore regularity and conformity.

Boldness of letters was increased by the suggestion that the letters were elastic and could be stretched to the desired width. If the letters in the image persisted in shrinkage it was suggested that paste or glue be employed to paste the letters when the desired width was obtained.

Stability was improved by asking the subjects to imagine that the letters comprising the word were created of metal with appropriate holes punched in each to accommodate fantasy nails. Unstable letters and words were visualized as being nailed securely to the screen. If instability persisted it was suggested that fantasy paste be used to fasten the letters to the imagined screen.

Latency or arousal interval was facilitated by increasing the motivation. The subject was urged to improve the time for each trial. Practice was usually successful in reducing the interval. The optimum time sought was an interval of two seconds between the command and the arousal of the corresponding image.

Duration was increased by a similar technique. The subject was encouraged to exert greater energy to prevent deterioration of the image until the command was given to permit it to fade.

These techniques and suggestions appeared to be effective in securing the desired results.

The control was given six sessions of free play and conversation to minimize motivational factors inherent in experimental procedures. Subjects in each experimental category were requested not to communicate with other subjects about the tasks.

All subjects initially received the four tests comprising the dependent variables. These were individually administered in random order. The training periods were observed and the final tests were given at the expiration of the training periods. The data were collected and treated statistically by an analysis of covariance.

Results

Reliability, intercorrelations, means, ranges, and standard deviations of dependent variables

An estimate of the reliability of the dependent variables was provided by the initial-final test correlations of the control group. Since the control group did not undergo experimental treatment, these correlations are true test-retest reliability coefficients. These are shown in Table 2. The minimum significant value at the .05 level for 13 df is .514. Since all reliability coefficient for the control are above that value reliability is indicated. The least reliable measure appeared to be Memory for Objects. This fact is in agreement with similar results obtained for normal children.

Table 2. Coefficients of Correlation for Initial and Final Tests

	VII	MWF	MFO	MFD
Control	.98	.77	.55	.90
IP2	.50	.93	.64	.97
IP6	.60	.96	.41	.76

The remaining correlations are not true test-retest reliabilities because of the treatment effects. The extent to which the experimental treatments would scramble the rank orders could not be predicted. The correlations in general were surprisingly high in spite of two non-significant values (IP2, VII; IP6, MFO).

The intercorrelations among the dependent variables are shown in Table 3. The minimum value for r for significance is .29.

Table 3. Dependent Variable Intercorrelations Based on Final Tests

	MWF	MFO	MFD	VII
MWF	....	.38	.48	.32
MFO		....	.41	.10
MFD			....	.27
VII				....

This table shows that Memory for Word Forms has some degree of commonality with whatever factors are measured by Memory for Designs, Memory for Objects, and Visual Imagery Index. Memory for Objects and Memory for Designs seem to possess some common factors. This is likewise true for Memory for Designs and the Visual Imagery Index. These results provide evidence that visual

imagery is not a unitary factor it was often assumed to be. These results generally support the findings obtained by the author for a fourth grade normal school population.

Table 4 contains the ranges, means, and standard deviations for initial and final tests. There is a general increment in the values shown. A decrement in the values can be explained by gains made by initially low-scoring subjects. These findings suggest that imagery practice resulted in fairly uniform improvement since the mean values increased without radically disrupting the rank orders of the subjects.

Table 4. Ranges, Mean, and Standard Deviations for Initial and Final Tests

	Initial			Final		
MFD	Range	Mean	SD	Range	Mean	SD
C	9-30	20.07	6.57	11-33	21.80	7.18
IP2	0-31	17.27	9.70	2-37	22.53	10.08
IP6	9-32	21.73	5.48	11-36	24.13	5.81
MFO						
C	7-19	13.73	3.61	11-27	16.27	4.35
IP2	8-24	15.07	5.01	15-30	19.60	4.14
IP6	10-20	15.20	2.93	13-26	19.60	3.84
VII						
C	0-71	33.13	28.66	0-76	33.47	28.90
IP2	0-69	20.20	23.28	36-85	61.07	16.86
IP6	0-74	35.67	26.28	0-83	48.93	27.85
MWF						
C	4-31	17.60	6.52	8-29	19.27	5.98
IP2	2-35	17.33	10.13	3-37	21.87	9.86
IP6	3-32	18.00	9.22	6-35	21.80	9.61

Comparisons testing the hypotheses

For each dependent variable three specific tests were applied to determine the appropriateness of the data for a covariance design. The .05 level was used in all tests. The tests used were (1) significance of regression, (2) Bartlett's test of homogeneity of the variance, and (3) homogeneity of regressions. All tests supported the use of analysis of covariance.

Hypothesis I stated that visual imagery can be improved through training. In this study visual imagery was measured by the Visual Imagery Index, Memory for Designs Test, and Memory for Objects Test. The results are shown in Table V. The minimum significant value for 1,42 df at .05 level is 4.07 and at .01 level is 7.28.

Three comparisons were made to test this hypothesis—(1) Control and IP2, (2) Control and IP6, and (3) IP2 and IP6. Hypothesis I was confirmed. This result is consistent with that obtained for normal children.

Table 5. F-ratios for Hypothesis I

Variable	Comparison	F-ratio
VII	C and IP2	10.50**
	C and IP6	5.90*
	IP2 and IP6	.19
MFD	C and IP2	4.35*
	C and IP6	.42
	IP2 and IP6	6.93*
MFO	C and IP2	5.03*
	C and IP6	4.59*
	IP2 and IP6	.08

* significant at .05 level
**significant at .01 level

Hypothesis II stated that training in visual imagery would improve memory for word forms. A Memory for Word Forms Test was developed to measure this contention. The same comparisons were made in this hypothesis as was used in the previous one. The results are presented in Table 6. Hypothesis II was confirmed. This is consistent with the results obtained for normal children.

Table 6. F-ratios for Hypothesis II

Variable	Comparison	F-ratio
MWF	C and IP2	4.84*
	C and IP6	4.11*
	IP2 and IP6	.38

Discussion

It has been shown by the author that with normal children imagery can be trained. Practice in imagery was shown to be effective for retarded children for the Visual Imagery Index, Memory for Designs Test, and Memory for Objects Test. The effect of imagery practice was a relatively uniform improvement among most subjects in the practice groups

The consistency of the results leads to the conclusion that a transfer effect was manifested. In the Visual Imagery Index, imagery was elicited in response to three stimulus words presented orally. The Memory for Designs and Memory for Objects Tests were visual administrations which required a response to abstract designs and concrete objects. The generalized effect demonstrated that training in visual imagery can greatly influence a variety of imagery processes even when these processes do not show a high degree of commonality.

The one inconsistency in results occurred in the Memory for Designs Test. Imagery practice on the lower level was significantly greater than the con-

trol. This fact was not confirmed for the higher level of training. Furthermore the lower level of training was significantly greater than the higher level. It is suggested that boredom entered into the abstract task and was a deterrent to improvement. In all other tests of imagery the results uniformly confirmed the hypothesis.

It is interesting to note, that, with the exception of the Visual Imagery Index, the significant results are based on relatively small changes in the values. This is explained by the uniformity in increments in the scores of the IP2 and IP6 groups. The fact that significance was obtained on such small increments permits greater confidence in attesting to the efficacy of the training as a causative agent in influencing the scores of the two groups receiving treatment.

Training in imagery apparently permitted the subject to obtain sharply defined images of words which may have served as models for similar representations enabling him to discriminate words efficiently. Possibly the vividness of the images tended to fixate the word firmly giving the subject confidence in recalling various word patterns.

It is suggested that perhaps vivid imagery divorces figure from ground forcibly. Subjects reported that practice made the images clearer, larger, and glossier. Apparently practice helped these pupils to more effective word discrimination.

The various intercorrelations among the variables indicated a moderate to low degree of generality. This evidence is at variance with the generally held assumptions regarding the unitary character of visual imagery.

Despite the indications of the correlations that the dependent variables were measuring different aspects of visual imagery, it should be remembered that with one exception the imagery practice groups showed significant improvements in each variable.

Conclusions

The consistency and generality of the results obtained in this study confirm the results obtained by the author with normal children. Imagery training might well be utilized for school subjects other than the language arts. Certain phases of mathematics which depend upon rote learning as number combinations, multiplication tables, and formulae should respond to this training.

(*Continued on next page*)

PROFESSIONAL PROSPECTUS

A new line of professional materials intended for those concerned with the education of exceptional children will be included among the new publications to be released by Stanwix House for use this fall. The materials will be unique contributions to the field authored by special educators of national reputation and respect. Watch these pages next fall for titles and descriptions.

STANWIX HOUSE, Inc. Pittsburgh 4, Pa.

It was possible to improve imagery in a relatively short period. Two sessions were sufficient in this study. This short training provides a useful tool for remedial reading instruction. Harris contended that the methods which have generally been most effective for teaching word recognition to the reading casualty have been through systematic attempts to improve perception by visual imagery. This study documents this assertion by Harris.

There was a lack of correlation between Memory for Designs Test and the Visual Imagery Index. This duplicated the results obtained when a normal school population was studied.

There are elements of commonality between Memory for Word Forms and the other variables. There are moderate degrees of correlation among these variables. The elements of learning which enabled normal children to improve Memory for Words were apparently present in retarded children in similar degrees.

The significant results obtained in this study suggest that retarded children respond well to this type of training. Its use should be increased to determine the effects in classroom situations.

References

1. Allport, Gordon, "Eidetic Imagery." *British Journal of Psychology.* 15:99-120. 1924.
2. Harris, Albert J.. *How to Increase Reading Ability.* Longmans Green and Co., New York. 1947.
3. Pear, T. H., "The Place of Imagery in Mental Processes." *Psychological Abstracts.* 12:729. 1938.
4. Penty, Ruth C., "Reading Ability and High Schools Drop-outs." *Contributions to Education.* Teachers College, Columbia University. 1956.
5. Radaker, Leon D., Visual Imagery as a Factor in Memory for Word Forms. Unpublished doctoral dissertation. Pennsylvania State University. 1959.
6. Rosseler, F., "Distribution and Appearance of Subjective Optical Eidetic Images in Boys and Girls from Six to Ten Years Old." *Psychological Abstracts.* 3:4741. 1929.
7. Susukita, T., "On Memory Images of a Perceptual Character." *Psychological Abstracts.* 11:5022. 1937.
8. Wheeler, Lester R. and Wheeler, Viola D., "Dyslexaphoria: Symptoms and Remedial Suggestions." *Elementary English.* 32:305-311. 1955.

INFORMATION INDEX

Please turn to the third cover of this current issue of EXCEPTIONAL CHILDREN, for a listing of latest references to topics of general Council business and interest.

AMBCO

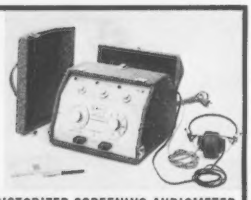
PRECISION INSTRUMENTS for TESTING and TRAINING the AURALLY HANDICAPPED

Write for illustrated literature on the complete line of Ambco audiometers and auditory training instruments.
CLIP AND MAIL, TODAY!

AMBCO, Inc. Dept. EC-2
1222 W. Washington Blvd., Los Angeles 7, Calif.
NAME
ADDRESS
CITY ZONE STATE

MODEL 902 (TTB)

TRANSISTORIZED TRUE BINAURAL TRAINER Two channel provide true binaural hearing for classroom or home use...individual microphones, amplifiers and volume controls to balance output to each ear. Transistorized circuitry and battery power for lightweight portability.



MODEL 1135

FULLY TRANSISTORIZED SCREENING AUDIOMETER Designed especially for the audiometrist or nurse in schools, public health service, institutions or industry...fast, accurate individual or group testing...exclusive, silent Photrol* tone interrupter...modular design printed circuitry...AC powered...portable.

MODEL 1400

JUNIOR TRANSISTORIZED MONAURAL TRAINER For classroom or home training. Printed circuitry of replaceable module design...AC powered...operates one to ten binaural headsets...three-speed record player.

MODEL 600

OTOMETER* Preferred by otologists and schools for fast, accurate air conduction screening and threshold testing...battery powered, lightweight and portable...exceeds all appropriate specifications of American Standards Association.

AMBCO inc.

1222 West Washington Boulevard
Los Angeles 7, California
RIchmond 7-5131

*Trade Mark Registered

TYPE S HEADSET
100-6000 CPS
SIZE: 3"x7"x2"

TYPE HF HEADSET
100-8000 CPS
WEIGHT: 1½ LBS.

EXCELLENT FOR INTEGRATED CLASSES
EXTREMELY GOOD DIRECTIONAL DISCRIMINATION
ACCURATE—STABLE—RUGGED
LONG BATTERY LIFE (LEAK PROOF)

Write for descriptive literature
Also available—economically priced
Model EB 31 Auditory Trainers

EB MASTER AUDITORY TRAINER

MODEL 33

for auditory training at its best!

An all transistor high fidelity true binaural auditory trainer with three separate adjustments for each ear.

1. ACOUSTICAL GAIN CONTROL
   Variable up to 75 db
2. FREQUENCY RESPONSE CONTROL
   0-18 db/octave attenuation of frequencies below 1000 cps. continuously variable
3. MAX. OUTPUT CONTROL
   sets maximum possible output in 5 db steps between 105-135 db. Excellent for recruitment cases.

A product of ECKSTEIN BROS., 1907 BEVERLY BLVD., LOS ANGELES 57, CALIFORNIA

EXCEPTIONAL CHILDREN is not published in June, July, and August. It is published nine times during the school year—September through May. If you plan to move and change your address for the next school year, please let us know your new address just as soon as possible to enable us to have your records and mailing data as current as possible. This will facilitate your prompt receipt of the September issue. It takes time to make changes, so notify CEC of any change in your mailing address at least five weeks in advance and be sure to include the following information:

1. Your old mailing address—the mailing wrapper from your journal is a ready identification
2. Your new address
3. Send your change of address to Membership and Sales Unit, The Council for Exceptional Children, 1201 Sixteenth Street, Northwest, Washington 6, D. C.

Rhinebeck COUNTRY SCHOOL

One of the outstanding small schools in this country in the field of special education for the slow learner and the educable retarded child. Individualized academic instruction, excellent social training in a happy, cheerful environment. Vocational preparation, warm home atmosphere, full psychiatric services.

Fine modern physical facilities include a swimming pool, shop, gym, farm, 110 acres of grounds. Year round program with summer camp and school. Coeducational, ages 6-18. Capacity for 50 children. Established 1954.

Please write for brochure

Leonard E. Zneimer, Dir.
Rhinebeck, N. Y.

CEC—DTE Supplementary Listing:

SUMMER COURSES IN SPECIAL EDUCATION

The April issue of EXCEPTIONAL CHILDREN *carried the main body of summer session offerings in the education of exceptional children. This work has been done under the guidance and supervision of Herbert Goldstein, University of Illinois, on behalf of CEC's Division of Teacher Education. College and university offerings listed here were received after the April issue went to press. For the earlier listing, please turn to your April issue. It carries a complete explanation of our abbreviations.*

Summer session plans are sometimes changed during the season, students are advised to write to the institution for final confirmation of course offerings.

SPECIAL NOTE: The listing of a certain course in this special report, or the one appearing in our April issue, does not mean that The Council for Exceptional Children or The Division on Teacher Education has evaluated, approved, or accredited the course itself or the total college or university program of which it is a part. Readers are urged to contact college and university officials for a description of the nature and scope of these courses, prerequisites, course instructors, dates for enrollment, and other information. The listing here is simply a collection of information, which is intended to serve as a helpful starting point for both the student and the college or university of his choice.

ARIZONA, U. OF — TUCSON, ARIZONA
Intro to Study of Ex Ch 3 u-g
Meths of Tchg Ment Ret 3 u-g
Educ of Gifted Ch 3 u-g
Probs in Spec Ed 2 g
Field Practs in Tchg Ex Ch 6 g
Individual Differences 3 u-g
Juvenile Delinquency 3 u-g
Speech Corr Wrkshp 6 u-g

ATLANTA, U. — ATLANTA, GA.
Intro to Study of Ex Ch 3 g
Speech Corr for Tchrs & Instructional Supervisors 3 g
Educ Gifted Ch 3 g
Meths and Mats of Tchg Ment Ret Ch 3 g
Nature of Ment Ret 3 g

BRIGHAM YOUNG U. — PROVO, UTAH
Educ of the Ex Child 3 u-g
Semnr in Spec Educ 2 g
Arts & Crafts for the Hand 2 g
Behavior Probs in the Schools 2 g
Intro to Speech Corr 2 u
Clin Meths in Corr of Speech Disorders 2 u
Clin Pract in Speech Corr 1-2 u
Organic Speech Disorders 2 u-g
Grad Clin Prac Speech & Hearing 2 g
Adv Studies in Cleft Palate 2 g
Spec Projects in Speech Path 1-4 g
Probs in the Educ of Ment Ret 3 g
Wrkshp: Curr Mats for the Ret 4 g
Stu Tchg (Ment Ret) 2-4 g
Obs & Partic (Ment Ret) 2 g

HOUSTON, U. OF — HOUSTON, TEXAS
Surv Course in Educ of Ex Ch 3 u-g
Spec Probs 3 u-g
Probs in the Educ of the Orthopedically Hand 3 u-g
Phonetics of American Speech 3 u
Clin Practice in Speech & Hearing Ther 3 u-g
Adv Clin Practice 3 u-g
Applied Phonetics 3 u-g
Semnr in Experimental Phonetics 2 u-g
Foundations of Hearing 3 u-g
Audiometry 3 u-g
Lipreading 3 u-g
Practicum in Audiology 3 u-g
Meths & Mats in Educ of Ment Hand Ch 3 u-g
Probs in the Educ of Ment Ret Ch 3 u-g
Visual Probs of School Age Ch 3 u-g
Prins and Meths in Braille 3 u-g

MARQUETTE U. — MILWAUKEE, WIS.
Prins of Speech Corr 3 u-g
Meths of Tchg Speech Corr 3 u-g
Audiometry & Acoustical Instrumentation 3 u-g
Adv Speech Corr 3 u-g
Voice Science 3 g

RUSSELL SAGE COLL. — ALBANY, N. Y.
Semnr in Tchg the Ment Hand 2 g
Practicum for Tchrs of the Ment Hand 2 g

U. OF ROCHESTER — ROCHESTER, N. Y.
Educ of the Hand & Gifted Ch 3 g
Ment & Educl Measurement of the Ment Hand 3 g
Meth of Tchg Ret Ch: Occ Educ 3 g
Practicum: Tchg Classes for the Ment Ret 4 g

ATTENTION all CEC members in Western Canada and U.S.A.

FALL REGIONALS ARE COMING YOUR WAY

NOV. 15-18, 1961 CEC WESTERN FALL REGIONAL
OLYMPIC WESTERN HOTEL
SEATTLE, WASHINGTON
Program Chairman: Georgie Lee Abel
Local Arrangements Chairman: Wylena Gamon

NOV. 29-DEC. 2, 1961 CEC WEST CENTRAL FALL REGIONAL
COMMODORE PERRY HOTEL
AUSTIN, TEXAS
Program Chairman: John Kidd
Local Arrangements Chairman: Margaret Emswiler

1961 SUMMER SCHOOL COURSES IN SPECIAL EDUCATION (See also, the April and May issues of EXCEPTIONAL CHILDREN, for more complete information.)

COLLEGE OR UNIVERSITY	ONE OR MORE COURSES IN:											
	COMPREHENSIVE COURSES	ADMINISTRATION & SUPERVISION	COUNSELING, REHAB. & GUIDANCE	BLIND AND PARTIALLY SEEING	DEAF AND HARD OF HEARING	SOCIALLY & EMOTIONALLY HAND.	GIFTED	MENTALLY RETARDED	SLOW LEARNING	NEUROLOGICALLY HANDICAPPED	PHYSICALLY HANDICAPPED	SPEECH HANDICAPPED
	1	2	3	4	5	6	7	8	9	10	11	12
Adelphi Coll., Garden City, N. Y.												
Alabama, U. of, University, Ala.	X				X		X	X				X
Alberta, U. of, Edmonton, Alta.	X							X			X	X
Arizona State U., Tempe, Ariz.	X						X	X				
Arizona, U. of, Tucson, Ariz.	X							X				
Arkansas, U. of, Fayetteville, Ark.	X		X			X	X	X				X
Atlanta, U., Atlanta, Ga.	X						X	X				
Auburn U., Auburn, Ala.	X							X				X
Ball State Teachers Coll., Muncie, Ind.	X				X		X	X				X
Baylor U., Waco, Texas	X							X	X		X	X
Bloomsburg State Coll., Bloomsburg, Pa.	X				X			X				X
Boston U., Boston, Mass.	X		X		X	X		X	X			X
Bowling Green State U., Bowling Green, Ohio	X				X							X
Bradley U., Peoria, Ill.	X								X			X
Brigham Young U., Provo, Utah	X		X			X		X				X
British Columbia, U. of, Vancouver, B. C.	X						X	X	X		X	
California State Coll., California, Pa.	X							X				
California, U. of, Los Angeles, Calif.	X							X				
California, U. of, Goleta, Calif.	X		X					X			X	X
Cardinal Stritch Coll., Milwaukee, Wis.	X											X
Central State Coll., Edmond, Okla.	X		X					X				
Chico State Coll., Chico, Calif.	X		X					X			X	X
Cincinnati, U. of, Cincinnati, Ohio	X	X					X					X
Columbia U., Teachers Coll., New York, N. Y.	X	X	X		X	X	X		X	X	X	
Connecticut, U. of, Storrs, Conn.	X	X					X	X				
Delaware, U. of, Newark, Del.						X		X				
Denver, U. of, Denver, Colo.	X					X	X	X				X
Eastern Illinois U., Charleston, Ill.												X
Eastern Michigan U., Ypsilanti, Mich.	X	X	X		X	X		X		X	X	X
E. Montana Coll. of Education, Billings, Mont.	X				X		X		X		X	X
Edinboro State Coll., Edinboro, Pa.	X							X				X
Emerson Coll., Boston, Mass.	X				X							X
Florida State U., Tallahassee, Fla.	X	X				X	X	X				X
Florida, U. of, Gainesville, Fla.	X						X	X	X		X	X
Fordham U., New York, N. Y.								X		X		X
Fort Hays Kansas State Coll., Hays, Kans.	X		X									
Gallaudet Coll., Washington, D. C.										X		X
George Peabody Coll. for Teachers, Nashville, Tenn.	X	X		X	X	X	X	X			X	X
Houston, U. of, Houston, Texas	X		X	X	X			X			X	X
Hunter Coll., New York, N. Y.	X		X	X	X	X	X	X		X	X	
Idaho, U. of, Moscow, Idaho	X						X				X	
Illinois State Normal U., Normal, Ill.	X			X	X		X	X		X	X	X
Illinois, U. of, Urbana, Ill.	X						X	X				
Immaculate Heart Coll., Los Angeles, Calif.	X						X	X				
Indiana State Teachers Coll., Terre Haute, Ind.	X											X
Indiana U., Bloomington, Ind.	X				X	X	X	X				X
Iowa State Teachers Coll., Cedar Falls, Iowa	X						X	X			X	
Iowa State U., Ames, Iowa	X											
Kansas State Coll. of Pittsburg, Pittsburg, Kans.	X	X						X				
Kansas State Teachers Coll., Emporia, Kans.	X	X					X	X	X			X
Kansas State U., Manhattan, Kans.	X											
Kansas, U. of, Lawrence, Kans.	X	X	X		X	X	X	X		X	X	X
Kent State U., Kent, Ohio	X	X			X		X	X	X		X	
Kentucky, U. of, Lexington, Ky.	X				X			X			X	
Los Angeles State Coll., Los Angeles, Calif.	X		X	X	X		X	X		X	X	X
Louisiana State U., Baton Rouge, La.	X							X				
Loyola U., Chicago, Ill.					X							
Maine, U. of, Orono, Maine							X					X
Manitoba, U. of, Fort Garry, Man.							X					
Mankato State Coll., Mankato, Minn.	X						X	X				
Marquette U., Milwaukee, Wis.												X

COLLEGE OR UNIVERSITY	ONE OR MORE COURSES IN:											
	COMPREHENSIVE COURSES	ADMINISTRATION & SUPERVISION	COUNSELING, REHAB. & GUIDANCE	BLIND AND PARTIALLY SEEING	DEAF AND HARD OF HEARING	SOCIALLY & EMOTIONALLY HAND.	GIFTED	MENTALLY RETARDED	SLOW LEARNING	NEUROLOGICALLY HANDICAPPED	PHYSICALLY HANDICAPPED	SPEECH HANDICAPPED
	1	2	3	4	5	6	7	8	9	10	11	12
Marshall Coll., Huntington, W. Va.	X							X				X
Maryland, U. of, College Park, Md.	X	X		X	X	X	X	X			X	X
Massachusetts, U. of, Amherst, Mass.							X	X		X		
Miami, U. of, Coral Gables, Fla.											X	
Michigan State U., East Lansing, Mich.	X			X				X				X
Michigan, U. of, Ann Arbor, Mich.	X	X		X	X	X	X	X		X		X
Minnesota, U. of, Minneapolis, Minn.	X	X		X	X	X	X	X			X	X
Missouri, U. of, Columbia, Mo.	X		X				X	X			X	X
Moorehead State Coll., Moorhead, Minn.	X						X	X				X
Newark State Coll., Union, N. J.	X							X				X
New York, State U. of, Buffalo, N. Y.	X							X				X
New York, State U. of, Geneseo, N. Y.	X				X			X				X
North Carolina, Woman's Coll., Greensboro, N. C.	X							X				X
Northeast Louisiana State Coll., Monroe, La.							X	X				X
Northeastern State Coll., Tahlequah, Okla.	X				X			X				X
Northern State Teachers Coll., Aberdeen, S. Dak.	X	X		X			X	X			X	X
Northwestern State Coll., Natchitoches, La.	X				X	X		X				X
Northwestern U., Evanston, Ill.					X					X	X	X
Occidental Coll., Los Angeles, Calif.					X	X	X					X
Ohio U., Athens, Ohio	X											X
Oklahoma Coll. for Women, Chickasha, Okla.	X				X			X				X
Oklahoma, U. of, Norman, Okla.	X							X				X
Oregon State System, Portland, Oreg.	X				X	X	X	X				X
Oregon, U. of, Eugene, Oreg.	X				X	X	X	X				X
Pan American Coll., Edinburg, Texas	X					X		X				X
Pennsylvania State U., University Park, Pa.	X						X	X				X
Pittsburgh, U. of, Pittsburgh, Pa.	X			X	X		X	X				X
Purdue U., Lafayette, Ind.					X			X				X
Rhode Island Coll., Providence, R. I.	X							X		X		X
Russell Sage Coll., Albany, N. Y.								X				X
Saint Louis U., Saint Louis, Mo.	X		X					X				X
Saint Rose, Coll. of, Albany, N. Y.								X				X
San Francisco State Coll., San Francisco, Calif.	X	X	X	X	X	X		X		X	X	X
San Jose State Coll., San Jose, Calif.	X		X			X		X				
Saskatchewan, U. of, Saskatoon, Sask.	X						X	X				
Seton Hall U., South Orange, N. J.	X							X				
South Carolina, U. of, Columbia, S. C.	X		X					X				
Southern California, U. of, Los Angeles, Calif.	X		X					X		X	X	
Southern Connecticut State Coll., New Haven, Conn.	X		X	X	X			X			X	X
Southwest Texas State Coll., San Marcos, Texas					X			X				X
Southwestern Louisiana, U. of, Lafayette, La.	X							X				
State U. of Iowa, Iowa City, Iowa	X	X				X	X	X			X	X
Stephen F. Austin State Coll., Nacogdoches, Texas	X							X	X			
Syracuse U., Syracuse, N. Y.	X	X	X	X	X	X	X	X		X	X	X
Temple U., Philadelphia, Pa.	X							X				
Tennessee, U. of, Knoxville, Tenn.	X						X	X				
Texas Woman's U., Denton, Texas	X	X	X	X	X			X	X	X		
Texas, U. of., Austin, Texas	X							X		X	X	X
Trenton State Coll., Trenton, N. J.	X							X		X	X	X
U. of Rochester, Rochester, N. Y.	X		X					X				
Virginia, U. of, Charlottesville, Va.	X		X		X		X	X				X
Washington U., Saint Louis, Mo.	X							X				
Washington, U. of, Seattle, Wash.	X				X	X	X	X				
Wayne State U., Detroit, Mich.	X	X	X	X	X	X	X	X	X	X	X	X
Western Michigan U., Kalamazoo, Mich.	X	X			X			X				
Western State Coll. of Colorado, Gunnison, Colo.	X							X				
Wisconsin, U. of, Madison, Wis.	X			X		X		X		X	X	
Wisconsin, U. of, Milwaukee, Wis.	X				X		X	X				
Yeshiva U., New York, N. Y.	X		X			X		X				

at SYRACUSE UNIVERSITY

a comprehensive summer program in all areas of Special Education:

Administration
Blind and Partially Sighted
Cerebral Palsy
Crippled Children
Deaf and Hard of Hearing
Gifted Children
Hospitalized and Homebound Children
Mental Retardation
Multiple Handicapped
Psychology of Exceptional Children
Remedial Reading
Speech Correction
Vocational Rehabilitation

Workshops, Conferences, Demonstration School and Residence School lend intensity, vitality to the summer curriculum.

Summer Session: July 5 - August 11, 1961

For further information write: Dr. William M. Cruickshank,
Special Education Building, Syracuse University, Syracuse 10, N. Y.

PERKINS SCHOOL FOR THE BLIND
and
BOSTON UNIVERSITY

jointly offer training programs for

TEACHERS OF BLIND CHILDREN

and

TEACHERS OF DEAF-BLIND CHILDREN

For descriptive brochure and information about

SCHOLARSHIPS

WRITE: Dr. Edward Waterhouse, Director
Perkins School for the Blind
Watertown 72, Massachusetts

TITLES

Accelerating the Reading Speed of 6th Grade Gifted Children, *Robert A. McCracken* 27
The Attack on Phenylketonuria: A Pilot Study, *Robert A. Henderson and Willard R. Centerwall* 260
Attitudes Toward Special Educational Programs for Gifted Children, *Norman K. Hamilton* 147
Automation in Special Education, *Lawrence M. Stolurow* 78
The Blind Adolescent and His Needs, *Georgie Lee Lee* 309
Bulletin 29, 95, 153, 205, 265, 311, 389, 439, 500
Characteristics of Homebound Adolescents, *Shirley Jenkins* 175
Chattanooga's Program for Talented Youth, *Walter B. Barbe* 350
The Concept of Regression in the Brain Injured Child, *Ray H. Barsch* 84
A Conceptual Structure for Safety Education of the Handicapped, *Ernest P. Willenberg* 302
Current Publications 56, 127, 230, 296, 400, 509
A Curricular Sequence Based on Psychological Process Rather than Subject Content, *Esin Kaya* 425
Dates To Remember ii
Deaf and Sensory Aphasic Children, *James L. Olson* 422
Determining the Prevalence of Hearing Impaired Children, *Leo E. Connor* 337
The Developmental Needs of Blind Children, *Jeanne R. Kenmore* 212
Diagnostic Referral Rates for Exceptional Children, *John W. Kidd* 199
Does Encephalitis Cause Mental Retardation? *Gilbert M. Shimmel* 151
Editorial 64, 132, 184
The Education of the Gifted, *William C. Geer* 436
The Educational Classification of Mentally Retarded Children, *Jack I. Bardon and Stanley I. Alprin* 235
Emotional and Psychological Background of the Neurologically Handicapped Child, *Eric Denhoff* 347
The Emotionally Disturbed Child in the Classroom Situation, *Irving Tallman and Samuel Levine* 114
Explanations Offered by Parents and Siblings of Brain Damaged Children, *Ray H. Barsch* 286
Forecasting Delinquency: A Three-Year Experiment, *William C. Kvaraceus* 429
How Emotionally Disturbed Children View the School, *C. E. Schorer* 191
The Hyperkinetic Child, *Harold F. Burks* 18
Intellectual Evaluation in Cerebral Palsy, *Robert M. Allen* 202
Intellectual Patterns of Gifted Compared with Average and Retarded, *James J. Gallagher, L. J. Lucito* 479
International Conference of Teachers of Backward Children, *Herbert Goldstein* 139
Language Barrier as an Educational Problem of Spanish-Speaking Children, *William R. Holland* 42
Learning Problems in a Schizophrenic Child, *John L. Johnson and Kristen D. Juul* 135
Lesson Areas for the Trainable Child, *Margaret Hudson* 224
Manuscript Writing with the Cerebral Palsied Child, *Winnie Bachmann and Kay Law* 239
The Mentally Retarded, *Edgar A. Doll* 487
A Methodological Study of Juvenile Delinquency Proneness, *Joseph K. Balogh and Patricia Finn* 397
Perception, Cognition, and Language in Deaf Children, *Joseph Rosenstein* 276
Post-School Adjustment of Former Educable Retarded Pupils, *Jack C. Dinger* 353
Prediction of Classroom Discipline Problems, *Claude J. Bartlett and Alfred A. Baumeister* 216
The Preschool Blind in Canada, *Jean Whitelaw* 292
The Present State of Research on the Able, *John Curtis Gowan* 3
The President's Page 1, 65, 133, 185, 233, 297, 345, 413, 477
Problems in the Education of Handicapped Children in Sparsely Settled Areas, *Chester R. Travelstead* 52
Programs for "Trainable" Mentally Retarded Children, *Josephine P. Sanders* 196
Psychological Procedures in the Diagnosis of Mental Retardation, *Marjorie H. Richey* 6
Reading Survey Tests Given to Educable Mentally Retarded Children, *Marvin C. Groelle* 443
Safety Features in School Housing for Handicapped Children, *Ray Graham* 361
A Second Language Means a Second Sight, *Gustave Mathieu* 269
Special Education of Handicapped Children in Japan, *Satoru Izutsu and Marvin E. Powell* 252
Special Education for the West, *Hall Sprague and Lloyd Dunn* 415
Speech and Language Development of Mentally Deficient Children Enrolled in Training Programs, *G. Orville Johnson, Rudolph J. Capobianco, and Donald Y. Miller* 72
State Level Educational Services to Gifted Pupils, *Eugene H. Smith* 511
A Study of the Integration of Deaf Children in Regular Classrooms, *Leo E. Connor and Clarence D. O'Connor* 483
Summer Courses in Special Education 450, 532
Systematic Intensification and Extensification of the School Curriculum, *Virgil S. Ward* 67
The Teacher's Role in a Children's Psychiatric Hospital Unit, *Katherine B. Douglas* 246
Teaching the Multiply Handicapped Mentally Retarded Child, *Robert A. Henderson* 90
Teaching Reading to the Partially Seeing Child, *Edith Cohoe* 11
Training Teachers for Special Education in England, *Thomas J. Watson* 307
Value of a Preschool Treatment Program for Severely Crippled Children, *William M. Diedrich, Barbara Allender, and Margaret C. Byrne* 187
Verbal Conceptualization in Deaf and Hearing Children, *Robert B. Hughes* 517
The Visual Imagery of Retarded Children and the Relationship to Memory for Word Forms, *Leon D. Radaker* 524
Vocational Training for the Retarded, *Evelyn Deno* 166
When the Teacher Researches, *T. Ernest Newland, Clyde J. Baer, and Raphael E. Simches* 299

AUTHORS

Abel, Georgie Lee, *The Blind Adolescent and His Needs* 309
Allen, Robert M., *Intellectual Evaluation in Cerebral Palsy* 202
Allender, Barbara, See Diedrich, William M.
Alprin, Stanley I., See Bardon, Jack I.

Bachmann, Winnie, and Law, Kay, *Manuscript Writing with the Cerebral Palsied Child* ... 239
Baer, Clyde J., *See* Newland, T. Ernest
Balogh, Joseph K, and Finn, Patricia, *A Methodological Study of Juvenile Delinquency Proneness* ... 397
Barbe, Walter B., *Chattanooga's Program for Talented Youth* ... 350
Bardon, Jack I., and Alprin, Stanley I., *The Educational Classification of Mentally Retarded Children* ... 235
Barsch, Ray H., *The Concept of Regression in the Brain Injured Child* ... 84
Barsch, Ray H., *Explanations Offered by Parents and Siblings of Brain Damaged Children* ... 286
Bartlett, Claude J., and Baumeister, Alfred A., *Prediction of Classroom Discipline Problems* ... 216
Baumeister, Alfred A., *See* Bartlett, Claude J.
Birch, Jack W., *Presidential Address* ... 494
Birch, Jack W, *The President's Page* 1, 65, 133, 185, 233, 297, 345, 413, 477
Burks, Harold F., *The Hyperkinetic Child* ... 18
Byrne, Margaret C., *See* Diedrich, William M.
Cain, Leo F., *Editorial* ... 132
Capobianco, Rudolph J., *See* Johnson, G. Orville
Centerwall, Willard R., *See* Henderson, Robert A.
Cohoe, Edith, *Teaching Reading to the Partially Seeing Child* ... 11
Connor, Frances P., *Editorial* ... 184
Connor, Leo E., *Determining the Prevalence of Hearing Impaired Children* ... 337
Connor, Leo E., and O'Connor, Clarence D., *A Study of the Integration of Deaf Children in Regular Classrooms* 483
Denhoff, Eric, *Emotional and Psychological Background of the Neurologically Handicapped Child* ... 347
Deno, Evelyn, *Vocational Training for the Retarded* ... 166
Diedrich, William M., Allender, Barbara, and Byrne, Margaret C., *Value of a Preschool Treatment Program for Severely Crippled Children* ... 187
Dinger, Jack C., *Post-School Adjustment of Former Educable Retarded Pupils* ... 353
Doll, Edgar A., *The Mentally Retarded* ... 487
Douglas, Katherine B., *The Teacher's Role in a Children's Psychiatric Hospital Unit* ... 246
Dunn, Lloyd, *See* Sprague, Hall
Finn, Patricia, *See* Balogh, Joseph K.
Gallagher, James J., and Lucito, L. J., *Intellectual Patterns of Gifted Compared with Average & Retarded* ... 479
Geer, William C., *The Education of the Gifted* ... 436
Goldstein, Herbert, *International Conference of Teachers of Backward Children* ... 139
Gowan, John Curtis, *The Present State of Research on the Able* ... 3
Graham, Ray, *Safety Features in School Housing for Handicapped Children,* ... 361
Groelle, Marvin C., *Reading Survey Tests Given to Educable Mentally Retarded Children* ... 443
Hamilton, Norman K., *Attitudes Toward Special Educational Programs for Gifted Children* ... 147
Henderson, Robert A., *Teaching the Multiply Handicapped Mentally Retarded Child* ... 90
Henderson, Robert A., and Centerwall, Willard R., *The Attack on Phenylketonuria: A Pilot Study* ... 260
Holland, William R., *Language Barrier as an Educational Problem of Spanish-Speaking Children* ... 42
Hudson, Margaret, *Lesson Areas for the Trainable Child* ... 224
Hughes, Robert B., *Verbal Conceptualization in Deaf and Hearing Children* ... 517
Izutsu, Satoru, and Powell, Marvin E., *Special Education of Handicapped Children in Japan* ... 252
Jenkins, Shirley, *Characteristics of Homebound Adolescents* ... 175
Johnson, G. Orville, Capobianco, Rudolph J., and Miller, Donald Y., *Speech and Language Development of Mentally Deficient Children Enrolled in Training Programs* ... 72
Johnson, John L., and Juul, Kristen D., *Learning Problems in a Schizophrenic Child* ... 135
Juul, Kristen D., *See* Johnson, John L.
Kaya, Esin, *A Curricular Sequence Based on Psychological Process Rather Than Subject Content* ... 425
Kenmore, Jeanne R., *The Developmental Needs of Blind Children* ... 212
Kidd, John W., *Diagnostic Referral Rates for Exceptional Children* ... 199
Kvaraceus, William C., *Forecasting Delinquency: A Three Year Experiment* ... 429
Law, Kay, *See* Bachmann, Winnie
Levine, Samuel, *See* Tallman, Irving
Lucito, L. J., *See* Gallagher, James J.
Mathieu, Gustave, *A Second Language Means a Second Sight* ... 269
McCracken, Robert A., *Accelerating the Reading Speed of 6th Grade Gifted Children* ... 27
Miller, Donald Y., *See* Johnson, G. Orville
Newland, T. Ernest, Baer, Clyde J., and Simches, Raphael F., *When the Teacher Researches* ... 299
O'Connor, Clarence D., *See* Connor, Leo E.
Olson, James L., *Deaf and Sensory Aphasic Children* ... 422
Powell, Marvin E., *See* Izutsu, Satoru
Radaker, Leon D., *The Visual Imagery of Retarded Children & the Relationship to Memory for Word Forms* ... 524
Richey, Marjorie H., *Psychological Procedures in the Diagnosis of Mental Retardation* ... 6
Rosenstein, Joseph, *Perception, Cognition, and Language in Deaf Children* ... 276
Russell, James E., *Editorial* ... 64
Sanders, Josephine P., *Programs for "Trainable" Mentally Retarded Children* ... 196
Schorer, C. E., *How Emotionally Disturbed Children View the School* ... 191
Shimmel, Gilbert M., *Does Encephalitis Cause Mental Retardation?* ... 151
Simches, Raphael, F., *See* Newland, T. Ernest
Smith, Eugene H., *State Level Educational Services to Gifted Pupils* ... 511
Sprague, Hall and Dunn, Lloyd, *Special Education for the West* ... 415
Stolurow, Lawrence M., *Automation in Special Education* ... 78
Tallman, Irving, and Levine, Samuel, *The Emotionally Disturbed Child in the Classroom Situation* ... 114
Travelstead, Chester R., *Problems in the Education of Handicapped Children in Sparsely Settled Areas* ... 52
Ward, Virgil S., *Systematic Intensification and Extensification of the School Curriculum* ... 67
Watson, Thomas J., *Training Teachers for Special Education in England* ... 307
Whitelaw, Jean, *The Preschool Blind in Canada* ... 292
Willenberg, Ernest P., *A Conceptual Structure For Safety Education of the Handicapped* ... 302

IT'S CATCHING ON*

*Life Membership in The Council for Exceptional Children $150 until June 1, 1961

(For new rates, please see p. 501 of this issue)

INFORMATION INDEX

Latest reference, in EXCEPTIONAL CHILDREN, to these topics may be found as follows:

Advances to State Federation: March '61, p. 390ff.

Annual Membership Report: March '61, p. 390ff.

Annual Treasurer's Report: Oct. '60.

Board of Trustees: Sept. '60, cover 3.

CEC Conventions: cover 2.

Chapter Activity Report: March '60, p. 357.

Constitutional Revisions: May '60, p. 449ff.

Fall Regional: cover 2.

Headquarter's Staff, cover 2.

Methods of Appointment to Membership and Nominations Committees and Election to Governing Board: Oct. '60, p. 108ff.

Membership Cycle for Same: Oct. '60, p. 108ff.

Nomination Procedures for CEC Officers: Oct. '60, p. 108ff.

Officers of Divisions: Sept. '60, cover 3.

Research Monograph Committee: Sept. '60, cover 3.

Provincial and State Governing Board Members: Sept. '60, cover 3

Publication Board: Sept. '60, cover 3.

Resolutions: May '61, p. 502.

Special Publications Committee: Sept. '60, cover 3.

ADVERTISERS IN THIS ISSUE

AMBCO, INC. 530

AMERICAN FOUNDATION FOR THE BLIND 478

BROWN SCHOOLS 523

CALIFORNIA STATE PERSONNEL BOARD 486

CLARK COUNTY (NEV.) SCHOOLS 493

CLEVELAND CRAFTS 498

CONTINENTAL PRESS, INC. 523

EASTERN MICHIGAN UNIVERSITY 521

ECKSTEIN BROTHERS 531

EYE GATE HOUSE, INC. 522

HALL TEACHERS AGENCY 513

JAY L. WARREN 514

JOHN WILEY & SONS 499

MOR-PLA JUMBO BLOX 513

PERKINS SCHOOL FOR THE BLIND 534

PORT HURON PUBLIC SCHOOLS 509

RHINEBECK COUNTRY SCHOOL 531

ST. JOSEPH INSTITUTE FOR THE DEAF 523

STANWIX HOUSE 529

SYRACUSE UNIVERSITY SUMMER SESSIONS 534

TRAIN AIDS 493

TOUCH INC. 498, 522

WOODS, DONALD W. 482

CONTENTS

479 INTELLECTUAL PATTERNS OF GIFTED COMPARED WITH AVERAGE AND RETARDED
• JAMES J. GALLAGHER
• LEONARD J. LUCITO

483 A STUDY OF THE INTEGRATION OF DEAF CHILDREN IN REGULAR CLASSROOMS
• CLARENCE D. O'CONNOR
• LEO E. CONNOR

487 THE MENTALLY RETARDED
• EDGAR A. DOLL

494 PRESIDENTIAL ADDRESS: STATUS OF THE COUNCIL IN RELATION TO TRENDS IN THE EDUCATION OF EXCEPTIONAL CHILDREN
• JACK W. BIRCH

511 STATE LEVEL EDUCATIONAL SERVICES TO GIFTED PUPILS
• EUGENE H. SMITH

517 VERBAL CONCEPTUALIZATION IN DEAF AND HEARING CHILDREN
• ROBERT B. HUGHES

524 THE VISUAL IMAGERY OF RETARDED CHILDREN
• LEON D. RADAKER

532 SUMMER COURSES IN SPECIAL EDUCATION

ii DATES TO REMEMBER

477 THE PRESIDENT'S PAGE

500 BULLETIN

534 INDEX TO VOLUME 27

27th Volume, No. 9